NEXT ANNUAL SESSIONS
California Medical Association, Los Angeles, May 7-8-9-10, 1946.
American Medical Association, San Francisco, July 1-5, 1946.

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CONTENTS AND SUBJECT INDEX

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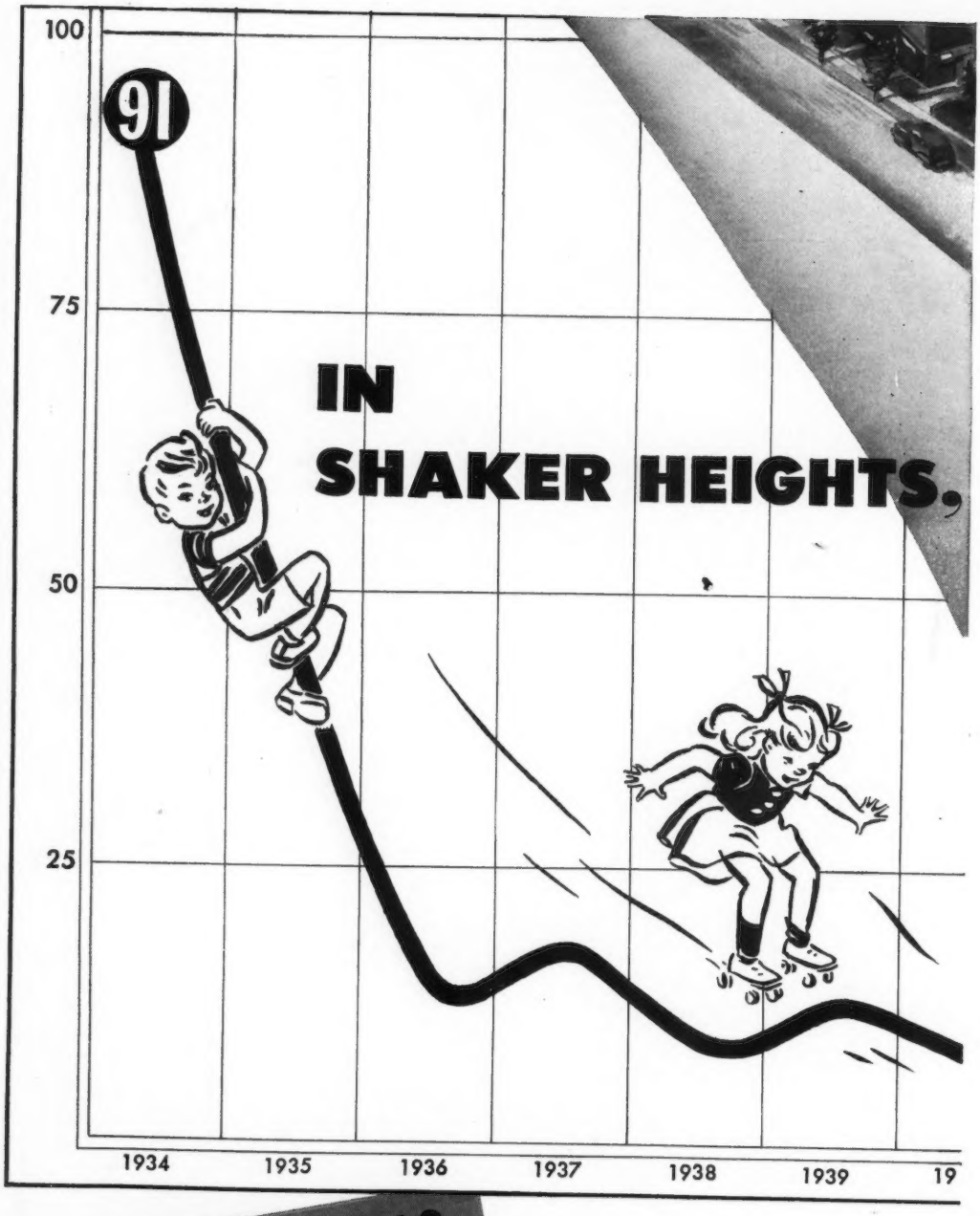

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Leaflet Regarding Rules of Publication.—CALIFORNIA AND WESTERN MEDICINE has prepared a leaflet explaining its rules regarding publication. This leaflet gives suggestions on the preparation of manuscripts and of illustrations. It is suggested that contributors to this Journal write to its offices requesting a copy of this leaflet.

DEPARTMENT INDEX

(Itemized Index of Articles is printed on Front Cover)

EDITORIALS

GREETINGS—1946 WILL BE A READJUSTMENT YEAR IN MEDICINE

Current Reconversion Problems.—World War II in its active phases, with VE- and VJ-days behind us, now belongs to history.

Today, "Reconversion Days," or perhaps, for the medical profession, "Readjustment Days," face not only the 60,000 colleagues who have or are returning from military life, but also the many thousands of physicians who, under unusual conditions, have been carrying on civilian practice since Pearl Harbor Day of December 7, 1941.

Whatever credit may be due to members of the medical profession who were in civilian practice for hard work during the war period, to them, appreciation has been and is again tendered.

However, to those Doctors of Medicine, men and women, who placed themselves in service for our Country, special meed of praise and thanks are due, and to all such, in California and other States, generous tribute by their non-military fellows is gladly expressed.

* * *

One Way to Show Appreciation to Returning Military Colleagues.—It is important to keep in mind that military colleagues who return to their former places of practice, only to learn that they cannot find office facilities in which to take up civilian activities, cannot feel other than somewhat disillusioned.

It is granted that space in office buildings is at a premium under existing postwar housing conditions, but there is no reason why office facilities during certain hours may not be shared between two or more physicians, particularly when by so doing, coöperation will be given to physicians coming back from the Armed Services, and who wish again to take up their work in private practice.

For the metropolitan centers of the Great Southwest, it must be acknowledged that many physicians actually use their office space for only a comparatively small part of the time available. This is in strong contrast to some of the office arrangements in vogue in the loop district of Chicago and in other Eastern cities, where the same suite of rooms may be used for two- and three-hour periods by a group of physicians who follow one another in turn, and who in spite of some inconveniences, carry on their office practices in quite harmonious manner under such conditions.

From what has been stated, the suggestion may be inferred that it would seemingly be in order, when the glad hand of fellowship is extended to returning military colleagues, to give the word greetings due expression in deed as well, by offering office facility participation whenever circumstances may indicate such need and action.

* * *

Agitation for Changes in Medical Practice Continues.—In the year now beginning, the medical profession will be confronted with many readjustment problems. The world is changing, social and other relationships of the times are changing, and some of the procedures in medical practice are also undergoing change.

In their devotion to practice of the healing art, physicians should not become so engrossed in service to sick individuals or groups of patients in hospitals, to permit themselves to ignore the agitation that is in evidence throughout the land; the purpose of which is to bring into being through what are little less than revolutionary procedures, certain changes in medical practice that could seriously affect the capacity of the medical profession to render a high quality of healing art service.

High standards in medical care can only be maintained if, in addition to excellent work by each individual physician, group spirit and loyalty to the guild to promote the good and advancement of the whole, also prevail.

* * *

For the year 1946, as in years past, CALIFORNIA AND WESTERN MEDICINE again extends greetings and good wishes to all members of the California Medical Association.

May the coming year measure up to our highest hopes!

LOS ANGELES COUNTY MEDICAL ASSOCIATION WILL CELEBRATE THE 75TH ANNIVERSARY OF ITS FOUNDING ON JANUARY 31, 1946

The Founders: With Special Reference to Doctors John S. Griffin and Joseph P. Widney.—Seventy-five years ago, on the evening of January 31, 1871, seven physicians resident in Los Angeles met and organized the Los Angeles County Medical Association. Those present were Doctors John S. Griffin, Henry S. Orme, Joseph P. Widney, William F. Edgar, R. T. Hayes, L. L. Dorr, and T. H. Rose. The organization meeting was held in the offices of Doctors Griffin and Widney.

The first president of the Los Angeles County Medical Association was John Strother Griffin, M.D.,* graduate of the University of Pennsylvania in 1837, assistant surgeon in the United States Army, acting in that capacity in the journey starting in Santa Fe, New Mexico, on September 25, 1846, when General Kearney's "Army of the West" made its trek into California by way of San Diego to take possession of California under orders from the United States Government. Doctor Griffin's death in Los Angeles, at age 82, took place in 1898.

Doctor Griffin's associate, Joseph Pomeroy Widney, A.M., LL.D.** received his M.D. degree from Toland Medical School of San Francisco (now University of California), class of 1866. His death occurred on July 4, 1938, at age 97. In 1885, Doctor Widney was the prime mover in the establishment of the College of Medicine of the University of Southern California, becoming president of that University in the financial depression of the nineties, preventing foreclosure on its properties through advancement of his personal securities. Like his associate, he was also an assistant surgeon in the United States Army.

In their time, others of the founders of the Los Angeles County Medical Association also held prominent places in the medical profession.

* * *

Some High-Spots in the Career of the Los Angeles County Medical Association.—Today, the county medical society established in 1871, at a time in California's history, when Los Angeles was grouped with smaller pueblos or municipalities, has developed until now in a county having a population of more than 3,500,000 persons, it has a membership in excess of 3,500 physicians. This membership total makes this county unit one of the six largest county medical societies of the United States. In membership numbers, it is exceeded in number by only seven of the forty constituent state medical associations of the A.M.A.!

Concerning some of its activities, much could be stated of this important county medical society that may be said to be setting a pace for many county and state medical organizations.

In addition to its valuable auditorium and library buildings at Westlake Avenue and Wilshire Boulevard, owned debt free, it possesses vested interests in other income producing property, and in its latest *Bulletin* appear drawings for large additions to its present housing facilities. Its plans and programs for benevolence and postwar funds, group accident coverage, public health lectures, conjoint meetings on medico-legal medicine, radio broadcasts, indoctrination courses for applicants to membership, and its County *Bulletin*,—probably the largest county medical publication in the United States,—are among activities that may be mentioned, to indicate the alertness and up-and-doing qualities of the personnel of the Los Angeles County Medical Association.

* * *

Anniversary Celebration Will be on Thursday Evening, January 31, 1946.—The anniversary celebration of its founding 75 years ago, will be held on the evening of Thursday, January 31, 1946, the ceremonies to be carried on in the Bowl of the Biltmore Hotel. The Association has generously extended to C.M.A. ex-presidents and members of the Council of the California Medi-

* For other reference to Dr. John S. Griffin, see CALIFORNIA AND WESTERN MEDICINE, February, 1944, p. 50.

** References to Dr. Joseph P. Widney in CALIFORNIA AND WESTERN MEDICINE, appear in issues of April, 1936, p. 292; May, 1936, p. 396; June, 1937, p. 398; August, 1938, pp. 106 and 161.

cal Association an invitation to be guests on this occasion.

On that evening, an historical edition of the *Bulletin* of the Los Angeles County Medical Association of some 200 or more pages, will be distributed.

For this happy occasion, other County Medical Societies and members of the California Medical Association resident in those counties, extend to members of the Los Angeles County Medical Association, felicitations of the day, congratulations on work achieved, and best wishes for the future.

The California Medical Association is proud of its largest county medical unit.

CALIFORNIA MEDICAL ASSOCIATION WILL HOLD ITS 75TH ANNUAL SESSION IN LOS ANGELES, MAY 7-8-9-10, 1946

Streamlined Sessions are of the Past: A Four-Day C.M.A. Session will be held at Los Angeles in 1946.—During the last several years, while World War II was on, it has been necessary to hold two-day, streamlined annual sessions of the California Medical Association.

Absence of many C.M.A. members who were in active military service, additional responsibilities and work that fell on colleagues who continued in civilian practice, over-filled meeting places in major hotels (especially Hotel Del Monte taken over by the Navy), transportation and other complications, all help explain the reason for the recent two-day, instead of the four-day annual sessions that were the custom in prior years.

With World War II now somewhat of the past, the C.M.A. Council in October, optimistically promulgated for the year 1946 a four-day session, to commence on Tuesday, May 7, and to carry through Friday, May 10.

* * *

Wartime Medical Meetings. — Even with World War II drawbacks, many medical meetings have been held by county medical societies and affiliated groups,—of which those under the auspices of the "Wartime Graduate Medical Meeting" committee have been conspicuous examples. The interesting programs of the Wartime Committee have appeared in succeeding issues of the OFFICIAL JOURNAL and even yet should have suggestive value to program committees of county medical societies.

* * *

Possible Essayists are Requested to Cooperate.—This present reference to the C.M.A. annual session to be held in May next at Los Angeles aims to call the attention of component county societies and their members, not only to the meeting—from the standpoint of possible attendance, but to urge in particular, that all members who may be in position to offer possible papers for consideration, should promptly communicate with the C.M.A. Committee on Scientific Work (of which the Association Secretary at 450 Sutter, San Francisco, is chairman), or with the secretary of the scientific section in which the proposed paper would probably be given place. (For list of Section Officers, see in current CALIFORNIA AND WESTERN MEDICINE issue, on adv. page 4.)

* * *

Outline of Program for this Year's 75th Annual Session.—In spite of existing conditions, it is hoped to present in May next, a substantial and up-to-date survey of topics on scientific and organized medicine.

The first meeting on Tuesday morning, May 7, will stress problems related to Organized Medicine of which, in California, there are many.

After which, the major groups on General Medicine and General Surgery will then carry on as in previous years. The remaining eleven scientific sections (Anesthesiology, Dermatology and Syphilology, Eye, Ear, Nose and Throat, Industrial Medicine and Surgery, Neuropsychiatry, Obstetrics and Gynecology, Pathology and Bacteriology, Pediatrics, Public Health, Radiology, and Urology) will each hold one, two or three meetings, depending in part upon the perseverence of the respective Section Officers, and also on the extent to which specialist physicians respond to the appeals of Section Officers for full coöperation.

Commercial or technical exhibits will again be given opportunity for their displays, the income therefrom covering a considerable portion of the convention expense (hotels throughout the nation propose in the future to institute the plan of charging for use of meeting rooms, on basis of a certain sum per day, for each chair required!).

In the Section on General Medicine, the Clinical-Pathological Conference will have suitable place; and panel discussions and joint meetings are under consideration by several sections.

Those very special features—the study groups coöperating with the Cancer Commission, that formerly met the day before the regular session began; namely, Cancer Symposium, Pathologic-Microscopy and Diagnosis, X-ray Diagnosis—will also be in operation, if present plans do not miscarry.

So also as regards programs and conferences of affiliated organizations and bodies—such as California Heart Association, Western Association of Industrial Physicians and Surgeons, California State Board of Public Health,—these, too, plan to hold meetings at which suitable programs will be presented and conferences held.

The Woman's Auxiliary to the California Medical Association will again take up its active work, and make plans for a militant, constructive program in the days ahead.

The C.M.A. Council will hold its daily meetings, and the House of Delegates without doubt, in these troublous times, will have its full quota of resolutions presented not only for consideration, but for policy determination.

Transportation and hotel accommodation diffi-

culties still obtain. In due time, as much information as may be obtainable will be given in regard thereto. Meanwhile, C.M.A. members who may wish to write to Los Angeles hotels will find a limited list in this issue (see page 39).

* * *

The 1946 Annual Session Will be What We Make It.—In conclusion, appeal is made to all members who may be able to participate, to submit titles for scientific papers (this invitation is extended also to military non-members who are stationed in hospital stations of military camps located in California), and to express the hope that not only Los Angeles physicians, but members of other County Societies throughout California will make special effort to be present at the 75th annual session of the California Medical Association.

Make note of the dates of the session, which appear at the top of the front cover of each issue of CALIFORNIA AND WESTERN MEDICINE,—namely, commencing Tuesday, May 7, through Friday, May 10, 1946.

C.P.S. AND VETERANS' ADMINISTRATION

New and Significant Alignments on Medical Care of Veterans.—Recent press dispatches indicate that the medical care of veterans, previously restricted to service in Veterans' Administration hospitals, might be put in operation in certain parts of the United States with addition of "extra"-Veterans' Administration hospital care. There are five VA hospitals at this time in California as follows: three general hospitals located at Palo Alto, San Francisco and Los Angeles; two tuberculosis hospitals operating at Livermore and San Fernando.

The first reference to private practitioner care of Veterans' Administration patients was to a plan instituted in New Jersey. Subsequently, an Associated Press dispatch of December 28, gave information concerning a contract made with Michigan physicians. On the following day, a news item referred to tentative negotiations for medical care to be given along somewhat similar lines, that were being carried on between California Physicians' Service and the Veterans' Administration authorities.

The A.P. item of December 28, dated at Washington, with comment on the Michigan procedure has informative value, and is worthy of perusal:

HOME TREATMENT PLAN FOR MICHIGAN VETERANS

Washington (*By Associated Press*)—Dec. 28.—Establishing a new policy to relieve its crowded facilities, the Veterans' Administration today announced a contract with Michigan physicians to treat ex-soldiers at home.

The contract is with the Michigan State Medical Society. It provides for its member doctors to treat war veterans whose disabilities are service-connected but do not require hospitalization.

Another plan nearing final approval would permit veterans to be hospitalized in their own community hospital instead of a Veterans' Administration institution. The Veterans' Administration would pay the bill.

Major General Paul R. Hawley, acting Surgeon General of the Veterans' Administration, said if the Michigan plan is successful it will be used in other states.

A Veterans' Administration statement said this is the first time a contract has been signed on a statewide basis for care of veterans by private physicians.

It added, the plan might increase the medical care and hospital space available for veterans with non-service connected disabilities.

Federal law requires hospitalization of veterans with non-service connected disabilities only if Veterans' Administration facilities are available.—San Francisco *Chronicle*, December 29.

* * *

Concerning the New Jersey, Michigan and California Non-profit Agencies.—At the time of this writing, concerning a possible contract with California Physicians' Service, additional information may be gleaned from news items appearing in this issue on pages 45-46.

In the three states referred to, the voluntary non-profit medical service organizations in New Jersey, Michigan and California seemingly have been the instrumental medical groups through which the conferences concerning these new medical care alignments for Veterans' Administration of the Federal Government have been made possible. Therefore, C.M.A. readers may be interested in the following statistical data concerning the three organizations.

* * *

New Jersey,—"Medical-Surgical Plan of New Jersey" with headquarters at Newark in a state having 4,080,485 population, enrolled its first patient in 1942, having on July 1, 1945, a total enrollment in its plan, of 41,732 persons. Its type of benefit is classed as "medical-surgical care, available only to hospital patients."

* * *

Michigan.—"Michigan Medical Service" with headquarters at Detroit in a state having 5,375,195 population, enrolled its first patient in 1940, having on July 1, 1945, a total enrollment in its plan, of 842,057 persons. Its type of benefit is classed as "surgical only."

* * *

California.—"California Physicians' Service" with headquarters at San Francisco in a state having 7,881,694 population, enrolled its first patient in 1939, having on July 1, 1945 a total enrollment in its plan, of 162,000 persons. Its type of benefit is classed as "surgical only" and "medical-surgical, home, office and hospital."

* * *

The figures above given are from the report of the "Hospital Service Plan Commission," John R. Mannix, Chicago, chairman, as given in a November, 1945, brochure, "Non-Profit Medical Service Plans." (Address: 18 E. Division St., Chicago, 10.)

* * *

Announcement of Veterans' Administration Acting Surgeon General—Major General Paul R. Hawley.—During the last year, many criticisms of Veterans' Administration hospitals have appeared in the lay and medical press. On that account it has been reassuring to note the frank-

ness and courage of the acting surgeon general of the Veterans' Administration, Major General Paul R. Hawley, indicated in addresses given by him before different medical groups*, and in which he stated his opinion of governmental medicine. From a Chicago dispatch of December 3rd, the following excerpts should be of interest:

"Don't Curb Doctors," Says Medical Chief

Chicago, Dec. 3.—(UP.)—Major General Paul R. Hawley, medical director of the Veterans' Administration and Acting Surgeon General, tonight denounced any type of Government control of medicine, asserting the medical field "doesn't need the Government to tell it how" to solve its problems.

General Hawley told the House of Delegates of the American Medical Association, now in session here, that "free and uncontrolled medicine will solve its own problems." . . .

He said the Veterans' Administration has an unprecedented job of treating thousands of veterans with an inadequate number of doctors.

He said private physicians would have to participate on a part time basis in veterans' hospitals and in private practice, receiving standard fees from the Veterans' Administration. . . .

* * *

It is to be hoped that the conferences being held in Washington at the time these comments are penned, will result in arrangements through which the physicians of California may be of increasing aid to returning veterans in need of medical care; while at the same time giving greater opportunity for C.P.S. (California Medical Association's nonprofit voluntary plan for medical care) to demonstrate its capacity for service to citizens.

* * *

Contract Signed Between V. A. and C.P.S.!—On January 8, word was received that the proposed coöperation between Veterans' Administration and California Physicians' Service for medical care of service-contracted disabilities of veterans had been signed.

With more than one million veterans in residence in California, the significance of this arrangement is self-evident. For press item thereon, see in this issue on page 45.

Because California and Western Medicine is in press, no further comment can be made at this time.

FREE BLOOD PLASMA TO BE DISTRIBUTED —IMPORTANT ANNOUNCEMENT

Value of Blood Plasma Has Been Shown.—The therapeutic value of blood plasma, as a means of saving human lives, has been demonstrated on battlefields and in combat clearing stations, as well as in hospitals, both military and civilian. While the United States was at war, the military personnel had first call and rights for plasma. The story of the blood donor centers is familiar to physicians and civilians alike.

Free Blood Plasma for Use in Private Practice.—Owing to the relative scarcity of plasma available for civilian institutions and for use in private medical practice, it is gratifying to give publicity to the news bulletin appearing below, in which an announcement of free blood plasma is made.

The California State Department of Public Health is formulating plans concerning distribution centers of the plasma. If, prior to the time the current issue of the Official Journal goes to press, additional information in regard to distribution is received, the same will be publicized.

The joint news bulletin of the Pacific Area Red Cross and California State Board of Public Health follows:

Plans for the receipt of 32,277 units of dried blood plasma to be distributed to the public free of charge through local California health departments, hospitals and doctors, were announced on January 2, in a joint statement by the California State Health Department and Pacific Area Red Cross.*

The dried plasma is California's first three months' share in the 1,250,000 units of plasma recently declared surplus by the Army and Navy and returned to the American Red Cross for civilian distribution.

Both Dr. Wilton L. Halverson, California state health director, and Dr. A. E. Hardison, acting medical director of Pacific Area Red Cross, stress the fact that this dried plasma in no way diminishes the need for people to donate blood at the 30 or more civilian blood donor centers now being operated by private organizations and medical groups in California.

"War experience has shown that dried plasma is most effective in about one out of every four cases requiring transfusions, and that whole blood should be used in about 75 per cent of cases," Dr. Halverson said.

The surplus plasma has not yet been received in the Pacific Area. As soon as the first three month's supply of 65,505 units arrives, 19,369 units will be stored in San Francisco as a reserve by the Red Cross. The remaining 46,136 units will be distributed to seven states, Washington, Oregon, Idaho, California, Arizona, Utah and Nevada, on a population basis.

In California, the State Department of Public Health will make the distribution to local agencies through its Division of Laboratories. A distribution plan is being worked out which will insure that as soon as the plasma arrives, hospitals and physicians can obtain the material without delay for patients who need it.**

McClintock's Sign.—From the time that Alfred McClintock received his medical degree from the University of Glasgow to the close of his life, he devoted his efforts to obstetrics. In this field, he assumed an outstanding position, writing numerous valuable works that bear lasting testimony to his ability, observation and experience. The recognition accorded him during life culminated in the attainment of highest professional honors at the time of his death.—Warner's *Calendar of Medical History.*

We should strive, not to live long, but to live rightly.
—Seneca, *Epistulae ad Lucilium*, Epis. xciii, 2.

* For address of Major General Paul R. Hawley before the House of Delegates of the American Medical Association, at Chicago, on December 3, 1945, see *Journal of the American Medical Association* of December 22, 1945, page 1192.

* For news item concerning plasma distribution, see also in this issue of California and Western Medicine, on page 56.

** The address of the California State Department of Public Health is 760 Market Street, San Francisco (2), California. The Pacific Area Red Cross has its office in the Civic Auditorium, San Francisco (1), California.

EDITORIAL COMMENT†

CYTOPLASMIC IMPLANTATION

About five years ago, it was shown by Bernheimer and Harrison[1] of Temple University, that there are antigenic differences between morphologically differentiated strains of paramecia. Rabbits immunized against one strain yield antibodies giving precipitin and complement-fixation reactions with homologous strains, with practically no cross-reactions with heterologous strains. Such antisera are specifically toxic. Tested in dilutions as high as 1:800 they often cause a "paralytic phenomenon" or "immobilization reaction" with homologous paramecia. After 2 hour incubation at 28° C, all ciliary action ceases, and the contractile vacuoles and undulating membrane no longer function. Death and disintegration eventually follow.

It was afterwards shown[2] that at least one strain (Paramecium aurelia) is antigenically heterogenous. It can be subdivided into at least four sub-antigenic groups. Bernheimer found no constant relationship between this sub-antigenicity and mating type. Instances were observed in which both members, neither member or only one member of a conjugating pair was immobilized by a given sub-specific antiserum.

In their latest work Harrison and Fowler[3] studied the effects of conjugation between two such antigenically distinct sub-species. Members of each group reacted quickly and extensively to homologous antiserum, but did not react at all to heterologous antiserum. As a result of heterologous conjugation members of each conjugating group acquired the specific antigenicity of the opposite group. This acquired antigenicity persisted for at least one month of active asexual multiplication.

The antigens involved in the conjugation transformation are very largely, if not exclusively cytoplasmic in character. From this and from microscopical evidence Harrison concludes that during the course of conjugation of Paramecium bursaria there is in addition to the well-known nuclear interchange, an extensive interchange of cytoplasm. The resulting cytoplasmic implant apparently multiplies or is multiplied in symbiosis with the new host cell.

Aside from its general biological interest the new theory of cytoplasmic implantation may necessitate a reëxamination of the basic concepts in many fields of theoretical immunology and clinical medicine. The nearest current approach to this phenomenon is in type transformations or capsular ingrafting of pneumococci. The theory suggests the futuristic concept that a similar cytoplasmic conjugation may take place between tissue cells.

W. H. MANWARING,
Stanford University.

REFERENCES

1. Bernheimer, A. W., and Harrison, J. A.: J. Immunol., 39:73, 1940.

2. Bernheimer, A. W., and Harrison, J. A.: J. Immunol., 41:201, 1941.

3. Harrison, J. A., and Fowler, E. H.: Science, 102:377 (Oct. 12, 1945).

E.M.I.C. Will Continue For Some Time After Program Is Declared Ended

With the cessation of the war, it was thought that cases under the Emergency Maternity and Infancy Care (E.M.I.C.) program would soon decrease in California. Since it is now doubtful that a formal declaration of the end of the emergency will soon be made, and since E.M.I.C. will continue for six months after the declaration, it appears that health departments for some time will continue to administer medical and hospital services to wives and infants of servicemen.

Under the policies of eligibility, all cases whose pregnancy occurred at the time the man was in the armed services and prior to the termination of the program will be accepted for care. Infants will also be eligible if the father at any time during the infant's prenatal life was in the armed services prior to the declaration of the end of the emergency. This, in effect, means that the E.M.I.C. program will taper off gradually as men are discharged but that it will continue to be in effect, principally for infant care, for a period from 18 to 21 months after the formal closing of the program which will occur six months after the emergency is declared at an end.

In California there were 3,126 women and 286 infants admitted to E.M.I.C. care during September. A total of 67,636 women and 4,580 infants have been admitted to care since the program was started in California in July, 1943. Expenditures since the start of the program have totaled $5,044,910.63.

Opinion of the Attorney General on Questions Relating to the California Tuberculosis Subsidy

A recent opinion of the Attorney General clarifies questions relating to the awarding of the tuberculosis subsidy, particularly to cities and counties which do not maintain sanatoria. The opinion was given in response to an inquiry from the State Department of Public Health and is quoted below.

"Sections of the Health and Safety Code material to this opinion are as follows:

"'3300. Each city, county, or group of counties may establish and maintain a tuberculosis ward or hospital for the treatment of persons suffering from tuberculosis. Each city, county or group of counties that establishes and maintains a tuberculosis ward or hospital shall receive from the State the sum of seven dollars ($7) per week for each person suffering from tuberculosis, cared for therein at public expense (*or cared for in private hospitals or sanatoriums under contract with the county,*) who is unable to pay for his support and who has no relative legally liable and financially able to pay for his support and who has been a bona fide resident of the State for one year; except that the city, county, or group of counties is not entitled to receive this State aid unless the tuberculosis ward, sanatorium or hospital conforms to the regulations of and is approved by the Bureau of Tuberculosis.'". . .

Los Angeles Center Conducts Research

The Los Angeles Rapid Treatment Center has been selected by the United States Public Health Service as one of the institutions to conduct research in the treatment of neurosyphilis with penicillin and fever therapy.

† This department of CALIFORNIA AND WESTERN MEDICINE presents editorial comments by contributing members on items of medical progress, science and practice, and on topics from recent medical books or journals. An invitation is extended to all members of the California Medical Association to submit brief editorial discussions suitable for publication in this department. No presentation should be over five hundred words in length.

ORIGINAL ARTICLES

Scientific and General

SICKNESS INSURANCE*

IN RELATION TO CALIFORNIA MEDICAL ASSOCIATION

JOHN CLINE, M.D.

San Francisco

SINCE he first appeared on the earth, man has engaged in a relentless effort to improve his lot. As his condition has improved, he has striven more and more to attain perfection. This restless quest for something he can never fully achieve is, I believe, one of the main driving forces of civilization. The voluntary effort of the individual man, alone or in concert with others, has been productive of most of the progress of the world. This applies with equal force in the fields of Science, Technology, Industry, Agriculture, the Professions and Politics. In the political field, it was the desire for freedom and the respect for individual rights of the common man which created democracy and which have preserved it in a number of the countries of the world.

Had we been born secure in health, in income, in freedom from want and worry, most of us would have been deprived of the great motivating influence which made it possible for free industry and free labor to have met the tremendous production demands of the war just recently ended.

If the day ever arrives when mankind achieves complete security, human progress will slow down or stop from that day forward. We shall cease to be a virile, progressive people and will probably degenerate because of the very fact of assured soft living.

You may consider this a strange beginning for a talk to a social security conference, but it is my opinion that the most dangerous delusion of our time is the widespread conviction that we can achieve social security by enacting legislation and turning the problem over to Government. You and I desire security, but we desire the security which we ourselves have had a part in creating. We do not wish Government to replace our initiative, desires and ambitions with a gratuity of limited perspective, such as the so-called social planners would thrust upon us. Like most of you, I wish to continue chasing the pot of gold at the end of the rainbow, and I do not expect Government to find it for me.

Now I am ready to discuss Health Insurance.

"HEALTH INSURANCE"—SICKNESS INSURANCE

At the outset, let me make several facts perfectly clear. In actuality, the term "Health Insurance" is a misnomer. It should more properly be called "sickness insurance." Its principal value lies in the application of the insurance principle to prevent the economic ravages of serious illness. It does not possess the golden attributes which the advocates of compulsory Health Insurance would have you believe.

Health Insurance has been painted in glowing terms as a means by which the incidence of disease could be greatly reduced. The preventive medicine feature has been repeatedly stressed. This is purely a manifestation of ignorance of the problem involved, which is common experience, when well meaning, but misguided persons, enter a field with which they are not familiar. The facts clearly refute any such contention.

Preventive medicine falls largely in the sphere of Public Health. Viewing the problem as a whole, comparatively little preventive medicine is, or can be, practiced by the individual physician. The primary bases for good health are good heredity, proper and adequate food and shelter, good habits and education. The draft statistics adequately demonstrate this to be the case.

Health Insurance is not a cure-all. It is merely a sound way of protecting your family's financial resources from being drained away in unpredictable periods of illness. It is a form of insurance against economic catastrophe. It will not prevent the development of a serious disease or the necessity for an operation, but it will permit you to undertake this treatment or that operation without making destructive demands upon your savings or assets.

"HEALTH INSURANCE" AND THE GOVERNMENT

Let me make one additional fundamental observation. There is nothing that Government can do for you in the field of Health Insurance which you cannot do for yourselves and do better and at less cost. This statement does not apply only to those assembled here today. It is equally true of all the people in California, except indigents, and all the people in the United States with the same exception. The fullest advantages of Health Insurance cannot be attained by just compelling people to pay into a fund. If compulsion were to be employed, it would also be necessary to compel people to go to a doctor and then unqualifiedly follow his advice. Certainly this variety of compulsion would be repulsive even to the ardent advocates of compulsory health insurance.

Now let us talk about the practicalities of the California situation. In the last legislature, a number of proposals for compulsory Health Insurance were introduced. The motives behind the introduction of the various bills may have differed, but all had the objective of solving a problem which we recognize to exist. That problem is the wide distribution of the costs of medical care through application of the insurance principle. The defects of the efforts at solution of this problem were apparent to all of you.

DEVELOPMENT OF INSURANCE PRINCIPLE

Not long ago, one of my friends in the life insurance business, told me that it took a hundred years to bring life insurance to its present stature. Now a majority of our people provides protection for its families against the tragic consequences of death. Today, every provident man carries life insurance for his family, and I believe this to be one of the finest social advances in the history of our country. This has been brought about, not as a result of governmental compulsion, but rather through the medium of education and private enterprise.

Private enterprise and the voluntary system have already accomplished the insurance of medical costs for a large segment of the population of California. The figures compiled by your own organization, earlier this year, estimated that some variety of coverage for hospital, medical care, or both, had been provided to about one million five hundred thousand people.

PRESENT PLANS OF CALIFORNIA MEDICAL ASSOCIATION

The California Medical Association is about to embark upon an intensive effort to accomplish in the next two years what has been achieved in the field of life insurance during its period of existence. The medical profession realizes that it cannot do the job alone. If we are to succeed, we need the help and active coöperation of business and civic organizations, of the press, of leaders in every walk of life. We need a coördinated campaign by every insurance company in the business—with the private insurance carriers, the Blue Cross Organizations, California Physicians' Service and all other health insur-

* Address given at Annual Meeting of California State Chamber of Commerce, in Los Angeles, November 29-30, 1945.

ance and service systems working together to sell the principle of voluntary health insurance to the people of California and then sell them coverage.

Health Insurance in one form or another is coming in California and throughout the United States. It is coming in a matter of a very few years. That is my considered opinion, and I believe that it reflects the consensus of opinion among those who have studied this problem. The recent interest of the Federal Administration in Health Insurance will unquestionably give impetus to its development.

VOLUNTARY SICKNESS INSURANCE—GOVERNMENTAL COMPULSORY INSURANCE

The only question, and this is a vital question, is whether it is coming on a voluntary basis as a new strong unit of our private enterprise system or whether it is coming on a compulsory basis with Government at the controls.

I believe you will agree that we already have too many Government controls, far too many. We all recognize, I am sure, the urgent need of getting rid of war time controls, rather than adding to them. I can assure you that the doctors of California will fight to the last ditch against bureaucratic political control of their profession, not just because they want to remain in the private practice of Medicine, but because the quality of medical care deteriorates when State Medicine comes in. However one may dress it or refurbish it, compulsory health insurance in any one of its proposed forms is State controlled State Medicine. The effort of the politicians to avoid the term "Socialization of Medicine," when that is exactly what they are trying to accomplish, is purely political window dressing.

The members of the California Medical Association are fully conscious of their responsibility and they intend to give heavily, both of their funds and their time and energy to develop voluntary health insurance coverage for the people of California.

COÖPERATION IS NEEDED

As I said earlier, we will be unable to accomplish this alone. We need your help. At this point, I wish to make grateful acknowledgment of the splendid help which the State Chamber of Commerce and other business and civic groups gave us during the fight against compulsory health insurance in the recent Legislature. We could not have won that fight without your help, and we are deeply appreciative. We realize, and I am certain you realize, that if Medicine should be socialized, it is but one step in the general development of socialization of all varieties of endeavor. There is now a greater appreciation on the part of the medical profession of your problems, as there is on the part of business of our problems. You will find the medical profession quick to respond when any other branch of our private enterprise system comes under attack.

CALIFORNIA PHYSICIANS' SERVICE

Next year the California Medical Association is planning to launch a vigorous advertising and sales campaign to develop California Physicians' Service. The object is to enroll tens of thousands of new members in this health insurance plan. As desirous as we are of furthering California Physicians' Service, we certainly do not wish all the business.

We hope that every private insurance carrier in the health insurance field will double its advertising and sales budget next year and will write more policies in one year than it has written in the past ten years.

We hope that the Blue Cross Plans and every other sound hospital or medical system will get into the campaign to make California health insurance conscious, and we hope that their memberships will grow enormously.

CAMPAIGN FOR VOLUNTARY SICKNESS INSURANCE

A large portion of the money which the California Medical Association has allocated for next year's campaign will be spent in an effort to sell voluntary health insurance in principle, rather than merely to build our own California Physicians' Service.

We intend to conduct an intensive newspaper and magazine advertising campaign to build up not only California Physicians' Service but all voluntary health systems. We will have radio advertising keyed to the same purpose. We will have an aggressive publicity campaign in the newspapers, magazines and trade publications, all designed to make California health insurance conscious and to open the doors for salesmen selling such coverage.

We intend to organize a public speaking campaign to cover civic groups, service clubs, women's organizations, farm and veterans groups, and every speaker will be trying to convert people to providing for the cost of illness on a regular budget basis during periods of good health and stable earning power.

We will have contact men in the field calling on the heads of major businesses and industries, labor unions and other employee groups to educate both management and workers to the need for prepaid medical care.

We intend to take leadership in setting up an overall organization, probably to be known as the California Coordinating Committee for Voluntary Health Insurance and representing more than one hundred State organizations, which are already on record against compulsory health insurance and which should be tied into a joint campaign for voluntary coverage.

In addition to civic organizations, all private insurance companies which handle health insurance, as well as all service plans, will be asked to participate in this organization.

The purpose of this coördinating committee will not be to sell any specific health insurance plan, but it will issue literature with data on all sound service and insurance plans with the object of selling the voluntary principle.

In short, the California Medical Association intends to furnish the money and the motive power for a whirlwind campaign to insure the budgets of Californians against the ravages of illness and accident. We feel it is imperative that a majority of our citizens be covered by one of the voluntary plans, and if at the end of 1946, the private insurance carriers have the bulk of the business, we shall be entirely satisfied.

MEDICAL PROFESSION'S OBJECTIVES

We desire primarily to make medical care available to as many of our people as possible on a basis they can afford and to assure them when they are ill, they can still call their own doctor and expect to receive from him the same kind of personal attention he has previously provided for them.

We don't want them to be in the position of having to clear with some bureau in Sacramento or Washington before being told how they can obtain care for a sick child or a dangerously ill mother. We want the physician of his choice to be free and unhampered in his care of the injured or ill person. We know that State medicine is bad medicine, and we want no part of it in California.

LIMITATIONS OF GOVERNMENT AID

Let me revert briefly to my original premise, the dangerous delusion that Government in some mysterious way can give us a blanket guarantee of security against old

age, unemployment and all the other problems that mankind is called upon to confront.

When Government seeks to guarantee security, it does so at the price of liberty. Let us not be deceived about that.

In his brilliant book, "The Road to Serfdom" Frederich Hayek makes an excellent summary of the sequence of events when he says:

"The slave state always starts out as a 'welfare state.' It promises freedom from want, worry—as many freedoms as you wish, except freedom from the State itself!"

For many years past, we have observed a continuous growth in Government, both in scope and in the numbers of people involved. Instead of increasing the number of bureaus and employees of Government, we should reduce them. The addition of a large bureau to carry out a compulsory health insurance plan would add greatly to the operating expense of the Government. Such a system would have to be supported by taxes. There is no way of calculating its cost. The ironic aspect of this would be that in return for a tremendously increased burden of taxation, the people would be provided with medical care of a distinctly inferior quality. They would be buying a third rate product at a premium price in dollars and at the sacrifice of another segment of freedom.

The physicians of California wish to serve the people of this State without the interference of onerous rules and regulations and control by bureaucrats and medically uneducated petty clerks.

That, simply stated, is the story. Thank you for the opportunity of speaking to you this morning, and let me earnestly ask you to get behind our campaign for voluntary health insurance.

490 Post Street.

THE ARMY DOCTOR*

COLONEL RUSSEL V. LEE, M.C.
MEDICAL CORPS, ARMY OF THE UNITED STATES
Palo Alto

ANY proper appraisal of the rôle of the Army doctor entails an appraisal of the Medical Department of the Army in which the individual doctor was merely one unit in 50,000. A proper appraisal of the accomplishments of the Medical Department in this war demands some consideration of the effort in other Wars and in other armies. In all candor, it must be said that until World War I, in spite of numerous individual examples of devotion to duty, heroism, and brilliant medical accomplishments, the work of the Army Medical Department was something less than distinguished. Distinguished individuals there were indeed. One need mention only such names as Letterman; who devised and put into operation ambulance evacuation; Hammond, the brilliant surgeon-general of the Civil War; Sternberg, who was really the father of bacteriology in this country; Reed and Lazear, who so heroically demonstrated the mosquito borne character of yellow fever; Gorgas, whose application of proper sanitary measures made possible the construction of the Panama Canal, to prove that the Army doctor in the past has attained a high place in medical circles. That this was done in spite of congressional apathy, opposition from the line, and a general inadequacy of equipment and funds, is all the more commendable. For it is a fact that until World War I, the Medical Department never had proper support or importance.

SET-UP OF MEDICAL CORPS IN FORMER WARS

In the Revolution, regimental surgeons were supplied by the colony that raised the levy, and they held first loyalty to the colony. There was a sharp distribution and bitter rivalry between so-called troop surgeons and hospital surgeons, and nothing like an over all medical organization. Nor did the war of 1812 add anything to the development of a real service.

The medical experiences of the Mexican War were dreadful. The supply of surgeons authorized was inadequate, there were no enlisted personnel attached to the Medical Department. Dependence was had on the band, on the cooks, and on the hostlers, for the care of the wounded. True, little was known about sanitation and hygiene but even the emperical knowledge which did exist was not applied. As a result of these deficiencies, plus a campaign in an unhealthy tropical climate, General Scott actually lost one-third of his troops from disease. The recommendation of the Medical Department that the port of Veracruz be avoided as a bivouac area was disregarded. As a result, yellow fever losses were heavy and the disease was introduced into several port areas in the United States. Neither this experience, nor the lessons of the Crimean War, in which military medicine made some notable advances, had any influence here and the Civil War found us little better off for a Medical Department.

However, during the course of the Civil War, Letterman, only 38 years old, developed the system of ambulance evacuation of wounded, set up something like adequate field hospitals, and with the support of his superior, General Hammond, made some progress in getting medical personnel assigned. However, the army reverted to a small force widely scattered among Indian fighting posts, and the progress made was largely lost.

In the 33 year interval between the Civil and Spanish War, the Army Medical School proposed in 1862 by Surgeon General Hammond, was established in 1893. But when the Spanish War began we had about 190 doctors, a total of a 100 hospital stewards authorized, no medical supply system, no medical reserve corps, no mechanism for securing physicians, no real table of organization for a medical establishment of any level. The unfortunate medical experiences of the Army in that war are within the memories of some of you. The killed and wounded were only few, the deaths from disease were appalling. The Dodge Commission appointed by President McKinley to investigate the situation made a number of recommendations which the very capable Surgeon General O'Reily put into effect, together with a number of good ideas of his own. Congress in 1908 passed a law which set up allowances for medical personnel and more important for the future provided for the establishment of the Medical Reserve Corps. Enlistments in the regular establishment were hard to get but, led by some of the most distinguished medical men in the country, the Medical Reserve Corps was built up sufficiently to absorb the first shock of demands for doctors for World War I. We had the years from 1914-1916 to get ready, and much was done. The volunteer committee in medical preparedness offered to make a study and classify available doctors and this was excepted. Dr. Fredrick Martin was appointed to the council on National Defense and he formed a strong group including the Surgeon Generals of the Army and the Navy and leading civilian physicians as well.

The type and the adequacy of medical care rendered in World War I was infinitely better than the Army had ever seen before. The only serious disease situation was occasioned by the world wide pondemic of influenza, for

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From the Preventive Medicine Branch, Office of the Air Surgeon.

which there was no real treatment and incomplete knowledge of prevention. The conquest of lockjaw and of typhoid fever and dysentery were notable advances in military medicine. During this period, however, the Medical Department was put under the service of supply and this has been continued by the present situation in which the Surgeon General is in the Army Service Forces. This arrangement has made for certain difficulties which will be touched upon later.

MEDICAL CORPS IN WORLD WAR II

World War II found us in much better condition medically than we had ever been before. The Medical Department as a whole and the Surgeon General's Office in particular had been well organized. Branches had been established for all the main divisions of medical activity. An exceptionally distinguished group of medical men had been appointed as special consultants to the Secretary of War. Commissions to deal with certain special diseases, such as the Typhus Commission, etc., were established under highly trained men with special knowledge of their subject. Tables of organization for every level had been drawn up. Manuals had been written covering many technical phrases of military medicine. There was a fairly important Medical Reserve Corps, particularly a number of units assigned as field or general hospital teams by various medical institutions, and these were ready for immediate call. More important than anything else there was in existence a large body of highly trained doctors, the product of the magnificent advances in medical education which have been achieved in the past twenty-five years. These young well-trained doctors have provided the soldier with personnel medical care of a quality that soldiers have never received before, and for the first time they have been available in adequate numbers. To use an army expression the medical department has been "fat."

Those medical men who were attached to National Guard Organizations came in automatically when the guard was mobilized before hostilities began. Then as the army grew the Reserve Corps was called into active service.

PROCUREMENT AND ASSIGNMENT SERVICE OF WORLD WAR II

But by far the greatest number of doctors came in through a new and unique device known as Procurement and Assignment. Originally an unofficial voluntary organization to assist in the selection of doctors, it ultimately was made official as a component of the War Manpower Commission. Procurement and Assignment consisted of committees organized in a county basis with state-wide supervision. These boards reviewed the qualifications of physicians and the needs of the community and certified certain doctors as essential. Those not so listed as essential were invited to apply for commissions from the Army or the Navy. If a doctor declined to do this he was certified to his local draft board and in a very few instances was drafted as a private in the Army. Some of these were subsequently commissioned. Some served through the war as enlisted men. I think it can be said that in general Procurement and Assignment did a magnificent job. The pressures under which these boards labored were truly terrific, the power they held was very great, with correspondingly great responsibility. If they sent away Dr. A while declaring Dr. B essential it was certain that Dr. B, in a community depleted of doctors, would make a great deal of money while A got along as best he could on army pay. They could wreck a medical school by sending away key teaching personnel, could cripple important research by removing vital doctors from an organization. Part of the activity consisted in keeping doctors at home who were anxious to enlist. There were bound to be complaints about such a system. In the army one hears, not infrequently, contempt expressed for this or that individual who had himself declared essential, coupled with the implication of undue influence being brought to bear upon the boards. But in the absence of a foresighted scientific classification of available medical men for military service this extemporized device has worked well.

MILITARY RANK GRANTED TO MEDICAL CORPS PERSONNEL

The rank your doctor received depended upon his age and his degree of competance. Up to the age of 37 he was commissioned as a first lieutenant if he had presented no evidence of qualification as a specialist, if qualified as a specialist he received the rank of captain. Above 36, specialists were made majors, others captains. Certain highly qualified individuals were commissioned as lieutenant colonels and a very few as full colonels. Promotions never satisfied anyone completely. Regular army officers of whom there were relatively few fared rather better than the reserves.

This has not made some AUS* men particularly happy. There were never enough T/O vacancies to give rank to all who deserved it. There were many examples of unfortunate individuals who by being transferred or for other reasons lost out on promotions obviously deserved and earned. The matter of prestige in this matter became exceedingly important to many medical men. There were a few recurring situations in regard to promotion which caused gripes. Mature medical men of judgment and experience and of some importance at home were burned up to find a youngster in the line or a young pilot with the rank of lieutenant colonel while they were still captains. The generality that "paper work," i.e., administrative positions carried the rank which were resented by many who believed that professional ability should have been the criterion by which medical officers were ranked. It was quite universally believed that considering their educational backgrounds in comparison to line officers, that the whole scale of rank allowed to the medical department was too low. One hears the proposal, frequently put forward, that rank as such, because it signified chain of command, might well be abolished for medical officers. That the pay go with the position held, that they all be on the same level as far as rank was concerned and designated as "doctor."

MILITARY TRAINING OF MEDICAL PERSONNEL

Most of the doctors who came in were sent first to an officers training school. Carlisle Barracks has been set up as the school for medical officers, and the type of instruction given there was generally regarded as excellent. In the tremendous rush of new officers, early in the war, emergency schools were set up in various places under less experienced instructors, and with consequently less thorough instructions. Some questioned the necessity of the doctor being taught all the administrative detail which was given in these schools, maintained that a trained M.D. was wasted in any case in administration, that all the logistics so painfully learned had no bearing on his medical activities and were soon obsolete anyway. Some units went through long, long months of military training before they ever saw a patient. They complained.

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* Ed. Note. AUS—"Army of the United States"—Selective Service and Volunteers; U.S.A.—"United States Army"—Regular Army Medical Corps.

PROFESSIONAL OPPORTUNITIES IN THE MILITARY ESTABLISHMENT

For some army doctors, the war was an educational opportunity. If he were fortunate enough to be assigned to a large busy hospital he might see such numbers of patients with a given condition, as would have taken a life time of ordinary practice. As a youngster he would frequently find himself under a board specialist, who had also been a professor in a medical school, and who could teach the junior officer a great many things. The complaints so common in the last war of misassignment was much less frequently heard in this war. Because of the policy at most posts of caring for the dependent personnel even obstetrician and pediatrician had an opportunity to practice their specialties. There were exceptions, but due to the careful and painstaking effort to find a man's aptitude, such bad assignments were not common. Most doctors found themselves at some post or station in the United States at first. As troops were trained certain ones were chosen from the pools at the various stations and assigned to the troops directly as battalion and regimental surgeons. In the Air Corps, they were sent to the school of aviation medicine and then assigned to squadron flight surgeons. Professionally these men frequently had a pretty thin time of it. The instance of illness was low, and all the serious cases were immediately sent to a hospital. So the doctor frequently spent long periods with very little to do almost no real medicine or surgery, a good deal of dry paper work. He was often unhappy. Some attempt later was made to work out some kind of rotation so that the battalion, dispensary or squadron surgeon had his turn in the hospital with patients. It never got very far, unfortunately, and as a result a good many young men lost rather than gained in professional skill.

HOSPITAL FACILITIES

The numbered general hospitals, station hospitals and evacuation hospitals that were set up and sent overseas were pretty well stuffed. Until the supply ran out, they were usually commanded by a regular army officer and the chief department headed by board specialists or men with equally high professional attainment. In activating these hospitals the machinery strained by the great overload, frequently showed the lack of lubrication. At times medical officers would be urgently demanded from a busy station hospital for inclusion in a new numbered general hospital, and then would have many weeks of complete inactivity while the unit was being put together, trained, moved from place to place, or set at a port of embarkation. These hospitals overseas were prepared to furnish first class medical and surgical care and did just that when they were utilized. The necessity of preparing for the worst that might happen in the way of casualties impelled the activation of more hospitals in certain areas than were actually needed. The most common complaint heard as one visited these hospitals in the field was that of not enuogh to do. Even on this state of affairs in a given theater was known to the surgeon general, the relationship he bore to the theater precluded his putting up these hospitals at will and moving them to a busier area. This gave rise, naturally, to a good deal of dissatisfaction and complaint on the part of highly trained men who having left busy practices found themselves idle. The position of the Surgeon General's Office, not being in a staff fund, being set up as referred to before in the Service of Supply and furthermore the position of the Medical Department always underline command frequently prevented logical readjustments of such unhappy situations.

EXPERIENCES OF OVERSEAS PERSONNEL

The doctor overseas with troops in training waiting for action with air groups or waiting for squadrons, frequently had a life rather far removed from the actual practice of medicine. Some time on sick call, some time on sanitary inspection of the camp area, some time making out reports, and a great deal of time with nothing to do, was common. In action there might be periods of intense activity, long hours, extreme fatigue and not uncommonly, great danger. A good many of these younger men were casualties. This was really the hardest lot of all. If they were good, and they generally were, their commanding officer would not let them go. There were slight chances for promotion, very little opportunity for medical advancement and some real danger. They should be given every chance to get back to active medical training again as soon as possible. They sometime showed their own kind of non-occupational fatigue. One captain, encountered, dully staring into space on a quiet out of the way station was asked, "How long have you been here." "Oh," he said, "I don't know and they won't tell me!"

MEDICAL ACHIEVEMENTS IN WORLD WAR II

The record of the achievement of the Medical Department in this war is truly a proud one, and it was not accidental but was the result of intelligent application of known discoveries and preventive medicine and of skillful bedside medicine and surgical care. The instance of venereal disease was kept low and in spite of an unparalleled breakdown in social barriers. There were no serious epidemic diseases in the continental United States. Malaria got out of hand briefly when we first went into the Pacific. Two factors contributed to this. First, the nature of the fighting precluded taking proper malaria precaution. Then, second, it was some time before the general and the colonels would listen to the doctors and put in the proper malaria control program. After a year even this disease, fantastically difficult to control under conditions of jungle warfare, was brought down to the trivial point so far as affecting the effective raid of troops. Plasma, the sulfomanoids, penicillin, and extremely competent individual care given casualties cut the mortality to an incredibly low point. If a man could be brought in alive he had a very fine chance of survival, regardless of the extent of his wounds. There was no lockjaw, no typhoid, practically no smallpox, no typhus, no plague, all diseases that have destroyed armies in the past. The development of air evacuation of wounded which reached remarkable numbers before the end of the war contributed greatly to morale, saving of life, and suffering. It was possible to bring patients from the Solomons, for instance, to San Francisco in two days, and thousands were so carried. The distribution of DDT by aircraft promises to change the social geography of the world in eliminating insect borne diseases. This has been directly the result of investigations carried on by the Medical Department of the Army Air Forces. Together with collaboration with the insect control committee in the Surgeon Generals Office, and the Department of Agriculture and Navy. It is not too much to say that the health of the whole country and of the world will be measurably improved as a result of the experiences and discoveries gained by the Medical Department of the Army in this war.

I have never heard of the same complaint of incompetent or mistaken care on any noticeable degree. The very mortality rate of soldiers as compared to civilians with the same disease speaks for that. The mortality rate of soldiers has been incredibly low with such diseases as pneumonia, meningitis, and other such conditions which have always carried a high mortality of civilian life. This has been due to the careful indoctrination of the individual medical officer in standards and proper pro-

cedures as to the very high quality of doctors that were recruited for this Army.

CONCERNING DEFICIENCIES IN MEDICAL ORGANIZATION

Well, one can justifiably point with pride to all of these achievements, it is no more than fair to point out some of the deficiencies in the medical organization in this war and to suggest means that can be improved in the next war.

The injustices and the delays and confusions of enlistments and assignments of commissions, were many. It would seem wise if we are faced with such a situation again and in any case, that all the available medical officers in the quiet times of peace, be classified as to their availabilities, and medical service. That they know in advance the order in which they are likely to be called, and the capacity in which they are likely to serve. In this way, the communities can adjust themselves if they find that they are overstaffed with a group of young doctors that are liable to military service, and the proper cushioning of the effect of such calls can be achieved. In this war there were many communities that were left practically depleted, either because their doctors were of an age group that were liable for military service, or because they rushed off in a body and volunteered. before the Procurement and Assignment was set up to prevent such occurrences. There was also a notable difference the way in which certain communities responded and some differences the way Procurement and Assignment boards functioned in various places. It is only fair to say that the record of San Francisco, in this regard, was very good. It contributed more than its average share of doctors to the armed forces. By the proper advance, scientific classification for doctors in regard to their military availability, would have obveated all this doubt and confusion. In addition it would have meant that the doctor would have made his own plans much more intelligently and would have avoided many of the hardships that have resulted from this war. But young doctors oftentimes deeply in debt were called into the armed services. They had to abandon their insurance programs, frequently lost their houses, by the time they had moved their families two or three times, were borrowing money from the bank again. Had they anticipated the possibility of military service, knowing how long it might have taken, this could have been obveated.

Another improvement that seems possible is in the physical standards of induction for doctors. A great many doctors who came up for commissions were disqualified because of trivial physical defects. These same doctors went back home and worked from 10 to 14 hours a day and made a great deal of money while their other brothers in the Army were serving with much less arduous duties and for much less remuneration. It was difficult for the Army doctors to understand why these physically disqualified individuals were able to work so hard at home.

A different standard of physical qualifications for doctors taking into account the fact that he is not likely to be called upon to hurl a grenade, make long forced marches, or carry a gun or a bayonet, might be in order. Also some system of rotation, whereby after serving a certain length of time in the Army, a doctor could go home and his place can be taken by a man who had been at home living under more or less normal conditions would have spared many injustices and saved lots of outraged feelings. It was quite obvious that many of the doctors who were left at home on allegedly physically grounds could have served perfectly well had they been called into active service.

"DOCTOR SHORTAGES" IN MILITARY AND CIVILIAN GROUPS

There has been a great deal of discussion raised as to whether the total number of doctors who have been taken into the armed forces was excessive. There seems to be indications that this whole matter of military requirements be subject to careful study. Yet, it is not unlikely that in due to the possibilities of air transport, air evacuation, and air supply of hospitals, that the number of doctors called upon could have been much less. Improvement in organizational efficiency which control the movements of hospitals and individual physicians could have also saved a great deal of time of idle waiting in pools and redistribution centers. The impact of war and the tremendous expansion of the Medical Department for a time overwhelmed the office machinery. In the beginning the commissions were oftentimes held up for several months while the paper work was finished, during the very period while the Army was urging doctors to enlist. Doctors found it difficult to understand after receiving such urgent appeals why it was that three or four months elapsed after they applied before they received commissions. It was simply that the mechanism did not exist for handling the tremendous amount of paper work that was entailed. The old matter of paper work in the Army and the actual operational side has been talked about a great deal. A certain amount of this is inevitable and a good deal of it has been eliminated during this war. There still seems to be too much and a study of the possibilities of more efficient reporting and record keeping, etc., would seem to be in order, in order to avoid waste of professional time in strictly non-professional matters. A system of rotation in the services, whereby a man who spends a certain amount of time in the field could then be given assignments in hospitals where there are opportunities for learning in the actual practice of medicine, should be more carefully worked out. This would leave the doctors who have served in the Army better satisfied with the type of organization in which they find themselves.

RESEARCH ACTIVITIES

The program of research, and investigation upon which the Army has embarked should not be abandoned in peacetime. The Corps of Liaison, with the OSRD University, and other agencies which have resulted in such prompt application of epic making discoveries has occurred in the case of penicillin and other preventive medical discoveries as well, should be continued. It is from such work as this that the health of our troops in the future will depend.

ON RETURN TO CIVILIAN PRACTICE

Your Army doctor will shortly be coming home. You will find that he will fall into several catagories. First there is the youngster who has come direct from medical school to the Army with no opportunity of practice and very little opportunity for advance training. These boys will want and will deserve to have a period of specialized training in the hospital. Medical schools and other institutions should make places for them to see that they can get the specialized training in medicine and surgery which their immediate predecessors had and which was so largely responsible for the magnificent care the soldiers received.

A somewhat older group of these young doctors returning who have already had their specialized training and had just begun to practice, represent a somewhat different problem. Frequently their financial situation is none too good. Often they had started practices, were doing very well and had embarked upon a standard of living which cannot be maintained on army income. These men will frequently require some sort of financial assistance until they can get fairly established again. Their insurance programs have been seriously interferred with, their regular payments on houses, etc., have been stopped.

It is hoped that during a period of postwar prosperity, these men will be given an opportunity to recoup some of their losses. They truly made a great contribution to military medicine.

There is another older group who have had many years of practice and have served in the Army in various specialized capacities. These men frequently show a complete change of attitude toward their practices. Often times they were men who worked tremendously hard for very long hours every day and now find themselves quite disinclined to go back to such a type of life. You will find these men more anxious to make some sort of arrangement that limits their time to a more reasonable period than that to which they were exposed before the war.

ON READJUSTMENTS IN CIVIL PRACTICE

The medical officer is no more amenable to regimentation as a result of his Army experience as he was before, perhaps less so. But he has seen the possibility of rendering good medical care by a species of group practice. The soldier has no pre-choice of position and actually it is well demonstrated in Army practice that it doesn't make a great difference, as it is so frequently stressed in its favor. The soldier takes whatever doctor is assigned to him. The assistant takes care of him, and the result so far as mortality and nobility are concerned speaks for themselves.

I think that it will result in the Army doctor on his return, being much more interested in the group practice in medicine, then he was before. The tendency to ally himself with other individuals who represent various specialties and practice in a way somewhat like he practiced in the Army, I think, will be seen increasingly in the country. The Army doctor needs some readjusting to normal peacetime life just as does the civil population, just as does the veteran in other categories. In general, his contribution to his country's welfare has been very great. Unselfishly and exceedingly capably done. There will be instances where he will be considerably put out by the records of his brother physicians who have stayed home. An understanding attitude will be necessary between them to prevent there arising a group of service doctors as distinguished from those who did not serve. This would seem to be unfortunate in the light of the practice of medicine for the future.

You will find in general when your Army doctor comes back, he will be the same man he was before, however, eager to serve, anxious to get along, and very happy never to leave his home town again.

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COMPARATIVE PATHOLOGY OF NATIVE CHINESE AND AMERICANS: SOME OBSERVATIONS*

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THE present global war has stimulated much interest in regional or geographic pathology. Observations, based on seven hundred autopsies performed in the American Hospital for Chinese Refugees, Shanghai, China, together with a large amount of surgical pathology in several hospitals for Chinese, and a review of much general clinical material in the Chinese population of the same city, revealed a striking contrast in frequency of various pathological conditions, between that population and the population of the United States.

Tuberculosis was the outstanding disease entity. There was very little hospitalization for pulmonary tuberculous patients; therefore post mortem material was minimal. However, in all hospitals which served the geenral Chinese public, the most frequent tissue diagnosis, even on surgical material, was tuberculosis. These specimens included lesions of almost every part of the body and were usually complications of the primary tuberculous complex.

The *acute infectious diseases of childhood* were comparatively infrequent considering the crowded war conditions. However, the acute enteric diseases, chiefly typhoid fever, bacillary dysentery, and cholera were serious causes of morbidity and mortality.

CLINICAL MATERIAL IN SHANGHAI AREA

A survey of the clinical material in the Shanghai area revealed that *amebic dysentery* was relatively infrequent. Routine stool analyses in several laboratories showed an incidence of ameba histolylica below 5 per cent. In seven hundred autopsies on Chinese refugees, twelve showed amebic colitis. Three of these had perforations of the colon and three had abscesses in the liver.

Typhus fever in Shanghai was interesting. In 1937, following the outbreak of the Sino-Japanese incident, a few sporadic cases were seen. From 1937 to 1942 the number of cases about doubled each year. However, in 1943, when we expected a correspondingly serious epidemic, for some unexplained reason there was hardly a case. Mortality among the Chinese, infected with typhus fever was below two per cent, while Europeans and Americans presented a forty per cent death rate when attacked by this disease.

Benign and malignant tertian malaria was a common cause of morbidity. In the surgical pathology material, malarial spleens were frequently seen, having been removed because of lacerations and rupture due to trauma. There was a rule in the Shainghai police force that an offender, who offered resistance, should not be struck below the neck, because of the frequency of ruptured malarial spleens by even quite minor blows.

In all types of pathological material, and clinically, the complications of the venereal diseases were seen. Gonorrheal epididymitis was relatively frequent, but joint complications appeared to be rare. Syphilitic aortitis and aneurisms were seen clinically and at post mortem. Sudden death, even among the coolies, was occasionally due to closure of the coronary ostia. Lymphopathia venereum was common, buboes were frequent, and, while rectal strictures occurred, I was particularly impressed with the large number of granulomatous masses in and about the rectum and anus, that occurred in many women with this disease.

Leprosy, as seen in a ninety patient leprosarium, showed, in addition to the usual manifestations, a predilection for the scalp. A great loss of scalp hair thus occurred, except for a tuft along each temporal artery, thereby producing a configuration ont commonly seen in Caucasians with this disease.

* * *

In the seven hundred autopsies on Chinese refugees, not one instance of well developed *atherosclerosis* was noted. Likewise not one death due to coronary sclerosis with myocardial infarction was recorded. This low incidence of atherosclerosis in the middle and low class Chinese appeared to be in accord with the many reports ascribing this disease to a dietary basis. The cholesterol containing foods, chiefly animal fats, are eaten very little by these groups of Chinese people. However, the wealthier Chinese who can afford to eat these foods do develop atherosclerosis and coronary heart disease as shown by study of clinical material. Diabetes and diabetic gangrene was not seen in any of the material studied.

* Read before the Section on Pathology and Bacteriology at the Seventy-fourth Annual Session of the California Medical Association, Los Angeles, May 6-7, 1945.

There was a complete absence of *cholelithiasis* in the seven hundred autopsies. This observation was substantiated by the rarity with which gall bladders were seen in the surgical pathology material. Cholelithiasis did not appear to be a disease of the middle and low class Chinese. However, a further study showed that the few cases that were noted were among the wealthier Chinese, and again these were the ones whose diets simulated the foreign type with a greater amount of cholesterol containing foods than was eaten by the lower classes. In the seven hundred autopsies there were many instances of typhoid fever and in these gall bladder ulcerations were seen, three with perforation. Observation on the Chinese people seemed to show that infection of the gall bladder alone would not produce stones. It was impossible to tell whether the cases seen in the wealthier groups had had infection of the gall bladder. However, it appeared that probably a high cholesterol intake was the prominent factor in the development of cholelithiasis in these people.

Bright's Disease was not observed in the seven hundred autopsies. This finding was substantiated by the occurrence of only a few scarred kidneys, and they were shown to be due to pyelonephritis associated with tuberculous or other urinary tract infections. The absence of glomerular nephritis was probably associated with the rare occurrence of scarlet fever and similar acute diseases. The absence of nephrosclerosis was associated with the low incidence of hypertensive disease. In the same material there was not a typical hypertensive heart. A study of clinical material, in the same area, revealed the hypertensive disease was practically unknown in the middle and lower class Chinese. However, among Chinese bankers, lawyers, doctors, business men, and officials the disease did occur and its fatal complications were frequently seen. The relationship of the rice diet to hypertension is interesting. All classes of Chinese eat large amounts of rice, yet, there is the difference in frequency of hypertension among the classes of the population. Is there a particular virtue in the rice or is some other factor eliminated in certain rice diets? I was impressed with the latter view. Also, there are probable hereditary and neurogenic factors. In a Japanese concentration camp we observed a general lowering of blood pressure in the inmates. After a few months of diet consisting largely of rice, with general weight loss, most systolic pressures were below 120 mm. Hg. even though many said they had been running relatively high blood pressure for a long time. Lessened activity, definite routine, including specified hours of sleep, and more or less resignation to the inevitable, also seemed to be important factors in the general lowering of the blood pressure.

The various types of *vascular tumors* were frequently seen. Telangiectatic skin lesions were very common as were subcutaneous and deep cavernous hemantiomata. Cystic hygromas of the neck were seen and smaller lymphangiomata of the extremities and body were not uncommon. Many of these became infected through various needling practices and presented complicated inflammatory structures.

* * *

Sarcomas of all kinds and locations were common. Many instances of fibrosarcomas of the feet and legs come to mind. Massive myxosarcomas and chondromyxosarcomas were seen. Lymphosarcomas, especially reticulum cell in type, was especially common and occurred often in nasopharynx and neck. Clinically, the differential diagnosis was important because of the frequent occurrence of tuberculous adenitis. *Hodgkin's disease* was not seen in any of the material studied. Several *leucemias* were observed and the majority of these were of the acute type, but chronic myelogenous and chronic lymphatic types were seen.

Nevi are very common among the Chinese, many of them of the hairy type. However, in both the autopsy and surgical material, melanomas were not recorded except for two instances of choroid melanomas of the eye. One might surmise that in addition to being of brunette type, the relatively clear skins of the Chinese, the loose type of clothing, and the lessened demands for such practices as shaving may have some influence on the rare occurrence of these malignant tumors.

* * *

Carcinoma was varied in occurrence. Cancer of the lip was hardly seen. Probably the old custom of use of water-cooled pipes and pipes with very long stems may be a factor. Bronchogenic carcinoma was not seen in the seven hundred autopsies but a small number of cases were studied elsewhere. One was impressed with the low frequency as compared to this country.

Carcinomsa of the nasopharynx and the accessory sinuses were common adn may be related to the frequency of sinusitis and nasopharyngeal infections among the Chinese. The Chinese people, in the Shanghai area, rarely have artificial heating even in the coldest of winter weather.

Carcinoma of the esophagus was frequently seen and appeared to be associated with the custom of taking all food and drink as hot as could be tolerated.

Carcinomas of the stomach were seen in the older age group. Likewise papillomas and carcinomas of the large intestine were noted. In the seven hundred autopsies there was a fair series of schistosoma japanicum involvement of the large intestine, and in three of these, cancer of the colon had developed in hyperplastic papillomatous areas of the irritated mucosa.

Carcinoma of the penis was a common tumor. The high incidence of phimosis, with retained secretions and infections, appeared to be the important factor. Circumcision is not practiced among the Chinese.

In the postmortem material available on the middle and low class Chinese there was not a typical peptic ulcer of the stomach of duodenum. However, this disease was found in Chinese middle school and university students and in the business and professional classes, but altogether much less frequently than in this country.

In Chinese women carcinoma of the cervix is very common. Many more of them were in women under thirty years of age than is seen in this country. This might be associated with the relative early age of child bearing as compared with our population. Carcinoma of the breast was the next most common cancer in the Chinese women and seemed to occur in those who had borne children. The relationship to lactation was not determined.

Much interest has developed in the relative frequency of *carcinoma of the liver* in the Chinese. In the city of Shanghai many cases were observed and the frequency seemed to be as great as the reported incidence in other Chinese areas. The Shanghai Chinese do not have clonorchis sinensis infestation of the liver, yet cancer of the liver appeared to be as common among them as in the Canton Chinese, where the incidence of clonorchiasis reaches as much as seventy-five per cent of the population. The cases observed in the Shanghai Chinese did not have schistosoma infestation and the schistosoma patients did not happen to have cancer of the liver. In Shanghai we were of the opinion that parasitic infestations were probably not of importance in the etiology of primary carcinoma of the liver. Some of the hepatic cancers were associated with portal cirrhosis and some were not. Portal cirrhosis was fairly common and usually was not on an alcoholic basis. Fatty livers were seen in children and adults with severe bacillary dysentery and some other acute infections. Probably long standing dietary deficiency was also a factor. We were in the process of studying the

relationship of this type of fatty liver to protal cirrhosis when the war interfered.

* * *

Observations concerning the occurrence of *benign hyperplasia of prostate* in Chinese men seems to be variable. Several urologists have stated that they have found this condition in Chinese in this country. In the seven hundred autopsies on Chinese refugees there was not one instance. In a special study of surgical material in several hospitals in Shanghai only three cases were found. There was no transurethral resection material, and several urologists in the city stated that they had not had enough cases to become familiar with the disease. No adequate reason for the apparent low occurrence of benign hyperplasia of the prostate in the typical Chinese population could be elicited.

Leiomyomas of the uterus occurred in all classes of the Chinese women but appeared to be much less common than in this country. In the seven hundred autopsies there were only four instances of very small tumors. In routine surgical pathology material a few fibroids were seen but not nearly as frequently as is seen in any pathological material here. Again no adequate reason for this low incidence could be found. In contrast was the very common occurrence of ovarian tumors, chiefly of the cystic types, some of which were of extreme size.

IN CONCLUSION

In conclusion, attention is again called to the contrast in frequency of occurrence of many pathological conditions between the Chinese in their natural environment and the Americans. Some of the factors responsible for the differences may be summarized as follows:

1. Differences in racial immunity as regards susceptibility and resistance to infection.
2. Difference in customs and habits of life.
3. Dietary differences.
4. Hereditary differences.

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CRUSHING INJURIES WITH RENAL FAILURE*

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THE Crush Syndrome occurs following massively necrotizing injuries, usually to the extremities, with destruction of muscle and commonly results in the fatal suppression of renal function. It has been observed frequently following air raids, when individuals have been pinned beneath heavy debris. It has emerged from the war as a well recognized clinical entity. There is now a sizable literature in English pertaining to it. Although it had been described sporadically as a consequence of civilian injury in a few foreign papers, certainly it had been overlooked, or not reported, here or in Britain, until the devastating "Blitz" of large communities in England during 1940-41. It was then that the clinicians pointed the way to substantiative animal experimentation. Until then, and for reasons now evident, the experimentalists had not produced the condition in their extensive studies of the pathologic physiology of injury. The subject is still a timely one, inasmuch as air raids are continuing (with the enemy bearing the brunt of the attacks) to such an extent that more explosives may be delivered in a single raid than fell in the entire period of the "Blitz." Then, over 70 authentic cases of Crush Syndrome were reported and it is estimated that in a raid of a center of population, about 5 per cent of casualties may be of this type.

We must be alert to the possibility of the development of the syndrome in future civil practice in mining, traffic, industrial, mob stampede accidents, etc., for only in this way can it be averted. It is probable that many cases have been missed because exclusive attention was paid to the surgical aspects of the severe lesions.

The author has observed the condition in civilians in England and herewith reports two cases in United States Army personnel, having ethiologic mechanisms which vary from the usual mode of trauma.

RELATION TO SHOCK AND EXTRA-RENAL AZOTEMIA

The entire conception of "shock" from a practical, clinical viewpoint has undergone revision. It is now accepted that many types of trauma,—burns, lacerations, hemorrhage, infliction of pain, crushing, freezing, frightening, etc., all yield specific results, but that they all have in common certain clinical manifestations which are called "shock" (a word which should always be enclosed in quotation marks) and are characterized by pallor, sweating, etc. These manifestations are conspicuous and are common to them all, but they are only parts of diverse processes, activated by these different traumata. The conception of "shock" as an entity, with cause and mechanism, has done more harm than good. Each specific trauma has its specific response, although of course, two or more may co-exist.

TABLE 1.—*Factors in the Production of Clinical "Shock"*

(1)	Fright (Emotional "shock")
(2)	Post-Traumatic Hypertension
(3)	Effects of tissue trauma
(4)	Neurogenic "shock"
	(a) Vasovagal
	(b) Brain Injury
(5)	Oligemic "shock"
	(a) Blood Loss
	(b) Plasma Loss
(6)	*Crush Syndrome* (Renal failure)
(7)	Blast Injuries
(8)	Effects of Toxic Gases
(9)	Effects of Anesthesia
(10)	Circulatory Collapse—Mechanical Causes
	(a) Fat Embolism
	(b) Pulmonary Embolish
	(c) Coronary Thrombosis
(11)	Toxemic "shock"
	Infection—Bacterial toxins
(12)	Dehydration Collapse (may play a part in war injuries) diarrhea, vomiting, etc.

Then too, renal function may be impaired as a result of a disturbed normal physiologic balance in surgical situations where the element of trauma does not play a primary part. When this factor becomes involved in cases of severe injury, the situation is further complicated. Extra-renal azotemia (the elevation of the non-protein nitrogenous blood elements without primary kidney damage) may occur as a result of one of the following:

1. A drop in blood pressure which affects the hydrostatic pressure in the glomerulus and consequently lowers the potential for glomerular filtration. Under spinal anesthesia, for instance, the volume of urine diminishes directly with the fall in blood pressure and ceases altogether with systolic pressure has reached 70 mns. of mercury.

2. Hypochloremia and hyponatremia may occur with persistent vomiting, gastrointestinal fistulae, diarrhea, rhinorrhea, excess sweating, evaporation from denuded epithelium, and polyuria. These result in the loss of both sodium and chloride and it is probable that urea is retained to maintain osmotic pressure. With sodium loss, regardless of fluid intake, there is a diminution in blood plasma. With chloride loss, there is a concomitant loss of fluids. The loss of either also upsets the acid base balance. Kidney function is diminished.

* From the A.S.F. Regional Hospital, Camp Haan, Riverside County, California.

3. Dehydration. With a specific gravity of 1.032, there must be at least 500 to 600 ccs of urine a day to excrete the 35-40 grams of catabolic solids produced in this length of time. With decrease of blood flow through the kidneys, there is a diminution of glomerular filtrate.

4. In the hepatorenal syndrome, the interrelation between liver and kidney dysfunction is demonstrated.

5. Many abnormalities of protein catabolism, such as are found in local infections, peritonitis, pneumonia, septicemia, and severe surgical trauma occur. With proper renal function and available fluids, the increased rate of protein catabolism can be taken care of by the kidneys, but the changes may be too rapid for the kidneys to adjust themselves.

In all of these instances of prerenal azotemia, the damage to the kidneys may be merely functional and reversible, but actual morphologic changes may occur. They are therefore to be considered in their relation to the pathology found in the Crush Syndrome.

CLINICAL MANIFESTATIONS OF THE SYNDROME

The clinical appearance of fatal renal failure following a crushing injury can best be described by citing a typical case. The patient is brought to the hospital after having had pressure applied to his limb or limbs for a period of from one to several hours. If there have been many casualties involved in a catastrophe, he will be one of the later arrivals. When first seen, on admission, his general condition may be good, provided he has sustained no other serious injuries. The pulse and blood pressure may be normal. There is some swelling of the limb and there may be some local anesthesia. Shortly wheals may appear at the site of crushing. Local edema slowly makes its appearance and spreads along the extremity. Movements of the affected part become limited or absent altogether. Various sensory disturbances, such as anesthesia, hyperesthesia, or paresthesia, may or may not occur. There may be intense arterial spasm, although the peripheral arterial pulse is not invariably absent when the patient is first seen. In a few hours the hemoglobin becomes raised, the blood pressure decreases and the picture of "shock" may ensue. This may be combated successfully by transfusions of serum, plasma and blood. The urine is diminished in quantity, contains albumen and many dark brown and black granular casts. The patient is alternately drowsy and anxious. Thirst and excess vomiting are common. The blood urea and potassium gradually rise while the chlorides and CO_2 combining power fall. There is progressive accentuation of all these abnormalities until death ensues in about one week.

TABLE 3.—*Biochemistry of Normal Muscle*

Cell ⟶	K^+	$PO_4^{\equiv}$	·	Myohgb.
Serum ⟶	Na^+	Cl^-		

TABLE 4.—*Blood in Crush Syndrome*

	Normal	Crush
K^+	18 mgm. %	30 + mgm. %
$PO_4^{\equiv}$	3 mgm. %	7-9 mgm. %
CO_2 c.p.	50 vol. %	28-32 vol. %

Autopsy reveals necrosis of the muscle. There are degenerative changes in the renal collecting tubules. They contain casts in which is brown pigment. These casts, microscopically, are not composed of red blood cells, but rather of desquamated epithelial cells and a pigment which has been shown to be myohemoglobin. Grossly and microscopically, the kidney has an appearance similar to that found in mismatched transfusion. However, there has been no evidence of such a mismatched transfusion,

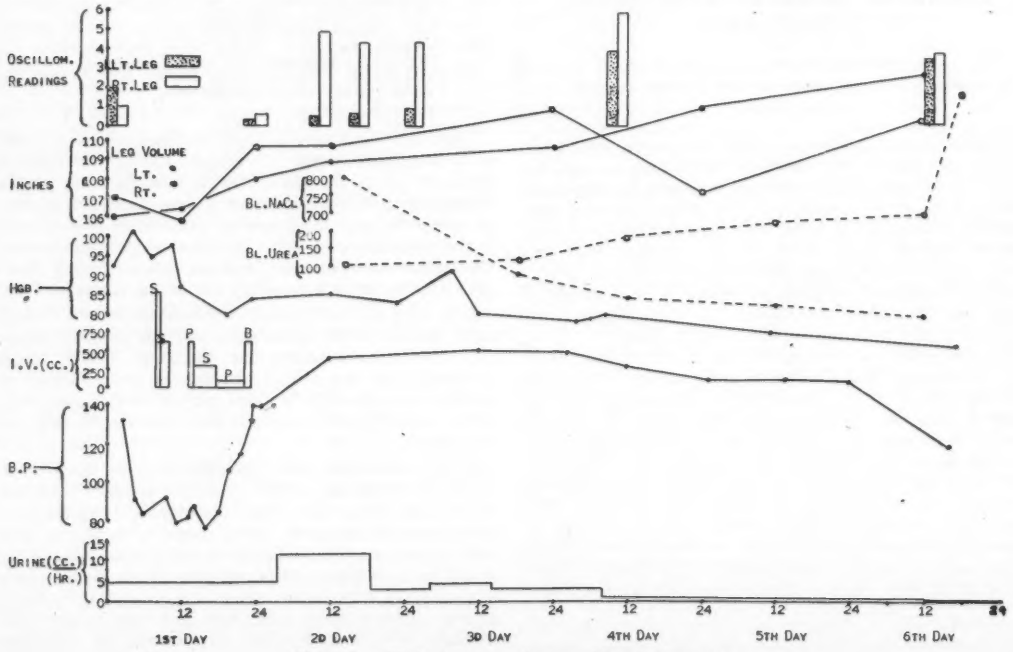

Chart 1.—Clinical course of a crushing injury case.

or possibly of any transfusion at all and the pigment can be shown chemically and spectroscopically, not to be hemoglobin.

PATHOGENESIS

Although there is some controversy concerning the cause of renal failure, the weight of evidence seems to be that it occurs as a result of mechanical plugging of the tubules by precipitation of myohemoglobin from the injured muscle in an acid urine. In the normal muscle cell are the potassium ion, phosphate ion and myohemoglobin while in the surrounding serum are the sodium ion and chloride ion. (See Chart 3.) The coloring of the muscle in man is myohemoglobin. Normally, there is no interchange through the cell membrane. A heavy object then cuts off the blood supply for a time sufficient to destroy the normal physiologic balance between cell and serum. The object is removed and eventually blood supply is brought to and through the dead muscle. The selective permeability of the membrane is lost and potassium, phosphate and myohemoglobin circulate in the blood stream. Table 4 illustrates the manner in which the blood levels of the first two elements are increased. The myohemoglobin blood level is not elevated because it has a low renal threshold. The size and shape of its molecule are such as to permit its removal from the blood stream. In the kidney tubules, because of the acid reaction and other factors, it is percipitated and renal failure ensues. The most important criticism of the blockage theory is that if tubular obstruction alone were concerned, such urine as was secreted should theoretically be of normal composition, coming from unobstructed tubules. The urine in these cases, however, is little more than a glomerular filtrate with a urea concentration factor of from 1.6 to 2.6. Among acute renal conditions the greatest reduction in the concentrating power is where there is severe damage of tubular epithelium.

Of interest is the similarity of the paralytic myohemoglobinemia found in horses. After periods of rest and rich feeding when horses are suddenly and strenuously exercised there may result acute stiffness, swelling, paralysis of the muscles, hemo-concentration, thready pulse, acidosis, and the appearance of muscle pigment in the urine. If the animal dies, some muscles are found to be pale and necrotic, looking like the pale flesh of fish. Seven such cases in man have been reported. Pathologically, the kidneys have an appearance similar to that found in the Crush Syndrome.

In some of the few cases of Crush Syndrome which have gone on to recovery, ischemic paralysis has occurred. One occasionally sees such instances of foot drop following severe injury where a record of study of the individual's physiologic and biochemic response at the time of injury are not available. At this meeting, two years ago, several cases of arterial spasm and subfascial tension of muscle in soldiers resulting in ischemia, necrosis, and Volkman's syndrome were reported. Data concerning renal function of these individuals was not included.

TREATMENT

The treatment of the Crush Syndrome is aimed at alkaline diuresis. The natural tendency under emergency conditions is to treat shock first, the injured extremity next, and then on the third or fourth day, to attend to the renal failure which is then making its appearance. However, here treatment should be just the reverse, since renal damage occurs only after there is an adequate blood supply to the limb. Ideally, the individual should have liberal fluids, such as coffee, tea, and water with sodium bicarbonate before he is released from the weight which imprisons him. Tourniquet may be applied at or proximal to the injured site until admission to the hospital. There sodium bicarbonate, 4 grams hourly, until the urine is alkaline and 30 grams a day for two days may be administered. Isotonic sodium lactate, 3-4 per cent sodium citrate, or 1.4 per cent sodium bicarbonate, in that order of preference, may be given intravenously.

After the urine has been alkalinized, one should then attempt to improve the circulation to the injured part. The limb should be kept cool to decrease autolysis and lower the margin of blood supply. It should be immobilized to reduce absorption and "shock." Splitting of tense fascial spaces, pressure dressings or casts, the treatment of vasospasm, amputation, etc., have their indications.

The treatment of the "shock" should follow or be concurrent with alkalinization. There may be leakage of plasma with no external manifestation and oligemic "shock" may ensue, although the blood pressure may remain normal as a result of compensatory vasoconstriction. Since renal function may be further impaired, one must recognize the "preshock" stage. Serum blood plasma must be given *before* there is a fall in blood pressure. Opiates are given for pain. The patient is *not* heated unless he complains of real coldness and then blankets may be used.

The value of mercurial diuretics, decapsulation of the kidney, administration of insulin and dextrose to mobilize the excess potassium, passive vascular exercise, etc., have been employed but are of questionable value.

REPORT OF CASES

The following cases exhibit the renal pathology in question. Neither, however, had a crushing injury such as described above, although both had extensive muscle damage. The first case was seen in the 30th General Hospital overseas and the clinical record is not available. The history is recited from brief personal notes made by the author and hence is very sketchy. The second occurred in this country. Major Frank Shea, M.C., Army Air Forces, Chief of Surgical Service at March Field, California, has been kind enough to allow me to refer to it. It is to be reported in further detail at a later date.

CASE 1.—(30th General Hospital, European Theatre of Operations.) Six hours before entry, the patient had been in an air raid over Europe in a B-17 bomber. He had been struck in the right lumbar region and left thigh by flak. He had been in moderate shock at this station upon return and had been given 500 cc. plasma and morphine there. The leg was fixed in Thomas traction. He was then driven to the 30th General Hospital by ambulance. Upon entry, he was conscious and pale, pulse 120, blood pressure 90/50. Chest normal. Abdomen showed slight tenderness throughout and was markedly guarded. There was some shifting dullness in the flanks. Peristalsis was absent. There was a compound fracture of the femur with the proximal fragment driven anteriorly and imprisoned in a buttonhole in the anterior fascia. There was a jagged wound of the right lumbar region. X-rays showed the fragment to be in the upper abdomen on the right. R.B.C.—3.6 million. Hgb.—100 per cent. Patient was treated for shock and then operated upon under inhalation anesthesia. The abdomen was entered anteriorly. There was 250 cc. clotted blood intraperitoneally. The right kidney, especially in its upper half, was shattered. There was a stellate laceration of the inferior surface of the right lobe of the liver. Right nephrectomy was performed. A fascial incision was made over the proximal femoral fragment to release it. Skeletal traction was applied. Postoperatively, the patient recovered consciousness, but was never fully oriented and soon lapsed into coma. There was facial twitching. The blood pressure was, at times, 170/0 with Traube's pistol shot sign and Corrigan pulse. Pulmonary edema developed. There was anuria for the first 36 hours and then incontinence of a few cc's. of brownish urine containing dark, granular pigment. The blood urea rose steadily. Death occurred on the fifth day. Autopsy showed considerable damage to the lumbar and thigh muscles. There was pulmonary edema. The spleen was enlarged and congested. The operative site disclosed on abnormality. The abdomen was otherwise normal. The remaining kidney was large and swollen. Microscopically it showed changed characteristic of the Crush Syndrome.

CASE 2.—Lt. R. D. Crash landing.—Patient pinned underneath wreckage. Minor fractures several transverse processes and 12th rib. Left thigh, minor contusion at junction mid-and-upper thirds. Flying suit and clothes drawn tightly around thigh as tourniquet for 4½ hours. While entrapped, morphine and plasma given and patient conscious and in good spirits. Immediately after removal, passed into deep shock. Accident at 2218 hours; admitted to hospital at 0330 hours. Examination disclosed reddish

discoloration of thigh. Dorsalis pedis palpable. At 0800 huors examination showed board-like calf, painful, reddish-blue mottling of skin. Foot-drop but able to raise toes. Peculiar sensory changes. First voided at 1100 hours, 600 cc., brownish-black. That evening at 1800 hours into shock. RBC: 7.4 M. Hematocrit: 65. Plasma and saline. Responded well. Blood pressure always high—first day 150/100 to 240/112 on day of death. Pulse 80-90 throughout. Urinary output always small: 105 cc. to 21 cc. on last day. NPN: 114 to 235. Urea nitrogen: 46-140. Creatinine: 3.5 to 14.2. CO_2 combining power never below 40 volumes per cent. Blood chlorides ranged from 530 to 580. No whole blood given. Generalized, progressive edema. X-ray, November 23, 1944, patchy areas lower portions both lungs. Possible early pulmonary edema. I. V. Pyelogram day of entry showed both kidneys of normal size, outline and position. Superior and inferior calices on left faintly outlined with dye, but only superior calices on the right visualized.

Autopsy:

Generalized pitting edema; both legs swollen and edematous. 500 cc. sero-sanguinous fluid in right pleural cavity and 800 cc. in left pleural cavity. Dark, reddish-purple areas, firm, posterior surface both lungs. Heart: 410 gms. Somewhat larger than normal, due to dilated right ventricle and auricle. Spleen: 210 grams, larger than normal. Chronic passive congestion. Right kidney: 225 grams. Left kidney: 210 grams. Small hemorrhage in capsule upper pole right kidney with superficial laceration 2 x 1 cm. beneath it. Kidneys pale, normal cortical markings obscured. Right cortex: 10 mm., left—7 mm. Bladder collapsed, 1-2 cc. cloudy, smoky urine. In the vastus intermedius were bundles of muscle fibers, grayish yellow, standing out sharply in contrast to surrounding edematous, purplish-brown normal muscle. Similar necrotic muscle in the calf of the right leg. Femoral artery and vein contain no thrombi. Microscopic: Right kidney: glomeruli appear avascular due to collapsed capsule. Cells around opening in uriniferous tubules markedly swollen. Cells of convoluted tubules so swollen that lumen is occluded at many points. In medullary portoin, collecting tubules have dilated lumina which are plugged with (1) red blood cells, (2) hemoglobin or acid hematin stained cells, (3) cellular debris. Latter consists of small cuboidal tubular cells or large cuboidal cells showing degeneration or mixture of polymorphonuclears, plasma cells and small cuboidal cells. Left: shows similar changes. Muscle: All stages of degeneration and necrosis. Cross striations are lost. Proliferation of nuclei at periphery and hemorrhage in connective tissue. Some fibers completely missing. Some show fragmentation and loss of nuclei. Spectographic analysis of urine reveals majority of pigment to be myohemoglobin. Smaller amount of methemoglobin was present.

DISCUSSION

Neither case was incurred in the manner commonly described, namely by being pinned beneath heavy fallen buildings, etc. The second had the effect of tourniquet action by his clothing. It has been hypothesized that this could occur in instances where tourniquets were inadvertently allowed to remain in place for too long periods but no cases are recorded. Both had actual trauma to a kidney as well as destructive injuries of the skeletal musculature. The element of a "'reflex anuria" may well have been superimposed to abet the process of pigment deposition in the renal tubules, as well as to disturb the ether physiologic processes previously described. In the first case, liver damage was also present. Both, of course, suffered from oligemic "shock" as well.

SUMMARY AND CONCLUSIONS

1. The Crush Syndrome occurs following necrotizing injuries to muscles through which blood is circulating, resulting in the absorption of substances abnormal to the blood and their excretion into the kidney. Renal failure then occurs, probably as a result of mechanical blockage although other factors may play a part.

2. The condition may occur in civil life and be overlooked.

3. The mechanism of injury is usually a long period of crushing by a heavy object but may occur by other means.

4. Other physiologic factors seen in a variety of surgical conditions may reflect upon kidney function and enter the picture of Crush Syndrome as complicating elements. "Reflex anuria," due to trauma to a kidney itself may be responsible for acceleration of the chain of events.

5. Prompt and early recognition of the possibility of renal damage in severe injuries must be made if therapy is to be of value. Treatment is aimed at alkaline diuresis before the blood supply to the extremity is revived, treatment of "shock" and restoration of the injured region.

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PHLEBOTHROMBOSIS, THROMBOPHLEBITIS AND PULMONARY EMBOLISM —PRESENT CONCEPTS*

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THROMBOEMBOLISM

INTRAVENOUS thrombosis is of major importance because of its complications and sequelae. There are two principal types of intravenous clotting—those with a manifest inflammatory reaction and those without. The last group is the most dangerous because of the difficulty of early detection. Frequently the first evidence of its existence is a pulmonary embolus. The only group that requires special emphasis is the quiet deep venous thrombosis, phlebothrombosis. It has been repeatedly emphasized by Ochsner and DeBakey[69,71,72,73] that phlebothrombosis must be distinguished from thrombophlebitis because of etiologic, clinical, prognostic, and therapeutic differences. The dread complication of pulmonary embolism is real, as is indicated by reported statistics as to its incidence and the number of fatal cases that occur. Reports from various sources show an incidence of from less than 1 per cent to almost 12 per cent of routine autopsies. Domrich[27] in a review of 26,439 necropsies, noted pulmonary embolism in 0 5 per cent, and in another series of 2,500 examinations, an incidence of 2.4 per cent. Belt[23] recorded an incidence of 9.8 per cent of 567 examinations, and Breslic[88] found 11.8 per cent in 457 necropsies. Hunter et al[47] in a review of 351 autopsies reported that fatal pulmonary embolism was responsible for 3.13 per cent of all deaths. In a subsequent review of 200 autopsies they[46] observed 11 deaths and 28 instances of non-fatal embolism. McCartney,[61] in a review of 25,771 necropsies from the University of Minnesota, from 1919 to 1938, noted 689 instances (2.67 per cent) of death attributed to pulmonary embolism. This is most certainly not only a surgical problem but the concern of every doctor. Hunter and his collaborators[46] in a study of 200 autopsies found 11 deaths from pulmonary embolism. Of these deaths, six were surgical cases and five medical.

* * *

Reports on the incidence of thrombosis and embolism following surgical procedures vary from 0.02 to almost 1 per cent. In 1912, Wilson[98] reported on 63,753 operations done at the Mayo Clinic and an incidence of embolism of 0.07 per cent whereas Heard[39] in 1923, at the Mayo Clinic, found an incidence of embolism of 0.12 per cent in 60,727 operations on men, and of 0.07 per cent in 43,605 operations on women. In 1940 Barker and his

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associates,[5] also reporting from the Mayo Clinic, showed an incidence of thrombosis and embolism of 0.96 per cent in 172,888 operations, of pulmonary embolism of 0.52 per cent and of fatal embolism of 0.20 per cent. They found that the incidence of fatal pulmonary embolism varied from 0 to 0.77 per cent. It is stated that there is a seasonal incidence of pulmonary embolism, but this is subject to some disagreement. De Takats and his co-workers[24] in a study of 100 cases of pulmonary embolism notes that the greatest incidence was during the spring and fall of the year with the greatest fluctuations of barometric pressure and temperature. Martland[60] found that in 86 massive embolisms in 10,797 necropsies from his medical examiners service, that March, April, September and December were the months with the greatest incidence of pulmonary embolism. McCartney,[61] on the other hand failed to show much difference. He also notes that thrombosis of the deep veins of the leg is appallingly frequent among middle-aged and old persons forced to bed for varying periods of time, the incidence of thrombosis being 52.7 per cent, with bilateral involvement 110 times, and unilateral involvement 75 times. In a survey of 4,070 postoperative deaths, Culp[14] in a study of 88 embolisms found that 62.5 per cent were present in persons over 60 years of age whereas only 41.2 per cent of all patients were over 60 years of age. McCartney[61] found venous thrombosis of pulmonary embolism in 471 instances or in 11.5 per cent. He considered that in 216 instances the pulmonary embolism could be called fatal (5.3 per cent). There were 1,506 women with 182 thromboses and embolism (12 per cent), and 2,564 men with 281 instances of thromboembolism (10.9 per cent). In the 1,506 women there were 90 fatal embolisms (5.9 per cent) and in the 2,564 men 126 fatal embolisms (4.9 per cent). There appears to be little difference in the sex distribution. McCartney,[61] in his study of 25,771 autopsies, found thromboembolism occurring in 9.1 per cent of men and 11.2 per cent of women, and fatal embolism in 2.2 per cent of men and 3.3 per cent of women. Veal and Hussey,[93] in a review of 84 cases of deep venous thrombosis of the lower extremity, reports that 55 of the patients were men and 29 women. Hunter, et al,[47] on the basis of findings in 351 cases of deep venous thrombosis, observe that 52.2 per cent were men and 53.5 per cent were women. The incidence of thromboembolism occurred in the following order postoperatively: uterus, hernia, extremity, bladder, perineum, head, kidney, large intestine, appendix, miscellaneous, thorax, gall-bladder, adnexa, small intestine neck, exploratory laporatomy, stomach, spine; and fatal embolism in the following order postoperatively; hernie, uterus, bladder, gall-bladder, perineum, adnexa, kidney, appendix, extremity, large intestine, small intestine, thorax, exploratory laporatomy, stomach, miscellaneous, head, neck. This demonstrates that thromboembolism can occur as a consequence to operation in any part of the body. Culp[14] noted that there were 88 pulmonary embolisms of which 32 were fatal in a survey of 8,163 urologic operations. Embolism was responsible for 6.62 per cent of the postoperative deaths. The incidence of fatal embolism after suprapubic operations was 0.67 per cent, after perineal 0.57 per cent, and after transurethral 0.25 per cent.

* * *

Aschoff's[2] theory of thrombosis, the one most generally accepted, states that most of the fatal emboli come from thromboses of iliac and femoral veins. The thrombus usually begins near a valve as a platelet or agglutination thrombus, and this forms the head. When this platelet thrombus has become large enough to occlude the vein, a coagulation thrombus made up of fibrin, red blood cells, and leucocytes forms in the obstructed vein where the blood is at a standstill. There is some dispute of this in recent years with the findings of Olow,[76] Denecke,[17] Roessle,[85] Neumann,[66] Frykholm,[35] and others, that many of the thromboses may have started in the veins of the feet and legs. The source of a pulmonary embolus is frequently difficult to determine. Anatomically, when the lower extremity is the source, the tributaries of the inferior vena cava are implicated. Anatomical dissections and clinical investigation in a large series of cases[5, 35, 46, 47, 61, 66, 83, 85] demonstrate that the veins of the lower extremity are most frequently involved, particularly in the leg or below, and are the most frequent source of pulmonary emboli. Frykholm,[35] in 133 cases of venous thrombosis discovered by anatomic dissection, observed that in 85 per cent the process was distal to the entrance of the profunda and most of these were below the knee. Neumann[66] observed that of 165 unselected cases, studed in a like manner, 100 had venous thrombosis. Thrombosis in the veins of the thigh were present in 45 per cent, but in each instance as a continuation of thrombosis, with intervals of freedom at those points in the lower extremity where compression is likely by extravenous structures. The foot veins were involved in 71 per cent, the leg veins in 87 per cent, and the thigh veins in 22 per cent. The calf veins were more often affected alone (29 per cent) than were the plantar veins alone (12 per cent). Of his 100 subjects with thrombosis of the lower extremities, 11.8 per cent had fulminating fatal pulmonary embolism, and of these, more than 80 per cent had clots in the veins of the feet and calves. If one includes the cases of non-fatal multiple emboli, the lower extremities account for 52.8 per cent of the clots lodging in the lungs.

Neumann[66] postulated two clinical types of thrombosis, based on the site of origin; (1) a benign variety, starting in the veins of the legs and characterized by slow progression of the clots, increasing in frequency with age and having a tendency toward multiple but non-fatal emboli; and (2) a malignant form, centered in the plantar veins and typified by rapidly progressive thrombosis, occurring in younger people, not rising in frequency with age, and tending toward fulminating, fatal embolism of the lungs. Virchow,[95] in 1846 published the first correctly interpreted examples of clot embolism and felt that the clot obstructing the pulmonary artery came from the veins of the pelvis or lower extremities. This concept has been maintained to the present time. Frequently the first sign of such an embolism will be the occurrence of a infarct in the lung.

* * *

The diagnosis of phlebothrombosis is thus extremely important and must begin with a suspicion. Detection only on the basis of repeated examination of the extremities, by measurement of the extremities, palpation, careful observation of the pulse rate and temperature,[58, 70] and blood sedimentation rate.

Phlebography has been given extensive trial as a diagnostic adjunct in the detection of phlebothrombosis but is subject to the criticism of inconstant visualization of various veins, failure of visualization of plantar veins, and lack of venous patterns that can be labeled as diagnostic. In 1931, Sgalitzer and Kollert[86] devised a technique for roentgen visualization of varicosities by direct injection of radio-opaque substances into the vein. They used 40 per cent uroselection or 20 per cent abrodil and they reported one case of hemangioma with excellent delineation of the venous tumor. Lesser and Danelius[55] credit Dr. Barney Brooks as originally employing the intraarterial injection of sodium iodide for radiographic visualization of the main and collateral vessels in 1924. Bauer,[6] Doughterty and Homans,[31] Fine, Frank, and Starr,[34] Allen, Linton, and Donaldson,[1] Ochsner, DeBakey and Schroeder[75] and others[28, 29, 30, 33, 55, 59] have

written much about their experiences with this method. Fine and Sears[33] in 1941 stated that "preoperative venography by the technique of Bauer promises to render other methods obsolete." More recently the senior author[34] dismisses phlebography with the statement that "we have, with increasing experience, come to find the value of venography much more limited than we had believed," because the disease may be present without phlebographic evidence, spasm may confuse the interpretation, and when one side has been ligated very often there will be no phlebographic evidence of thrombosis on the other side, and in the meantime the individual may develop another embolus. Allen, Linton and Donaldson[1] are less inclined to rely on this procedure. They found positive clinical evidence of thrombi with negative phlebograms in one-third of the cases and are coming to depend on clinical evidence. This conforms to what can be expected on the basis of pathology of thrombosis in the veins of the legs and feet as has been discussed above. We have employed phlebography routinely on all cases of suspected venous pathology and obstruction at the Vascular Center at DeWitt General Hospital, except in cases of active superficial phlebitis. This is a definite and absolute contraindication to phlebography because of repeated experiences of reactivation of a supposedly inactive superficial infection.

* * *

A review of 136 phlebograms done on 110 cases shows the following distribution:

	Right	Left	Total
Upper extremities	8	7	15
Lower extremities	49	72	121

The distribution of 492 veins visualized in 136 phlebograms of the lower extremities were as follows:

	No.	% Visualized
Iliac	68	13.8
Pudendal or epigastric	9	1.8
Superficial femoral	75	15.2
Gluteal	3	0.6
Deep femoral	65	13.2
Femoral collateral	35	7.1
Internal saphenous	75	15.2
Popliteal	72	14.6
External saphenous	15	3.0
Deep veins of the leg	75	15.2

Of these there were 42 cases of intravenous clotting reviewed as follows:

	Right	Left	Total
Upper extremities	2	1	3
Lower extremities	12	30	42

The types of cases were:

Chronic deep thrombophlebitis	35
Phlebothrombosis	3
Axillary Thrombosis	2
Migratory phlebitis	1
Superficial phlebitis	1
	42

In the 38 cases of deep venous clotting of the lower extremities 131 veins were visualized as follows:

Iliac	22	16.8%
Pudendal or epigastric	7	5.3
Gluteal	1	0.8
Superficial femoral	8	6.1
Femoral collateral	25	19.0
Internal saphenous	33	25.2
Popliteal	19	14.5
Deep veins of the leg	16	12.2

* * *

These figures indicate that the most common collaterals in the thigh are those along the femoral vein and the internal saphenous vein. A review of the phlebograms in the lower extremity reveal agreement with the clinical findings in the advanced cases of thrombosis or obstruction. Phlebography has been an aid in evaluating the cases of chronic deep thrombosis as to the degree and extent of obstruction and the amount of canalization. Canalization was demonstrated in 5 phlebograms, and, contrary to anticipation, these were the milder types of cases. In some cases phlebography accurately demonstrated the underlying pathology when a confusing history and clinical pattern presented itself. It is of definite help in evaluating the more severe types of varicose veins with multiple perforators which do not respond well to even multiple tourniquet tests. It is agreed that phlebography is of no value in the early detection of phlebothrombosis or even in its location when the condition has demonstrated itself by means of a pulmonary embolism. It is well to mention a word of warning that the procedure is not innocuous, as 26 deaths have been collected by Pendergrass, Chamberlain, Godfrey, and Burdick[79] from the use of diadrast for this purpose. We are able routinely to visualize the iliac vein sometimes to its entrance into the inferior vena cava. A conjunctival test for sensitivity to diodrast is done, the individual is questioned as to a history of hay fever and asthma, and a check made on the specific gravity of urine. If these findings are negative phlebography is done carefully, 1 cc. of diodrast being injected intravenously and waiting 2 minutes for any effect before continuing the injection. The individual is placed on an ordinary x-ray table with the x-ray tube 42 inches above the table. A 14 x 17 film is placed in a Bucky carrier so as to visualize the thigh, and a 14 x 17 film is then placed in an ordinary cardboard film holder from which the lead backing has been removed and a par speed screen has been substituted. The cardboard holder is placed beneath an ordinary portable field grid. Soft tissue x-ray technique is used for the exposure. For an average thickness thigh an average of 59-62 K.V. at 100 M.A. for an exposure time of one second is used with the tube centered over the patella. A vein is then selected on the dorsum of the foot, preferably on the lateral aspect, and novocain is injected into the skin as this is a very sensitive area. A No. 20 gauge intravenous needle on a 30 cc. syringe is then inserted into the vein and 30 cc. of diodrast injected in 45 seconds. An x-ray exposure is then taken. At the end of the exposure, the tourniquet, which has been loosely placed around the upper thigh so as to obstruct the internal saphenous vein, is made tight by the doctor twisting it. This compresses the entire venous system and the dye is retained in the extremity. The cardboard holder and cassette are removed and another cassette placed in the Bucky carrier. The Bucky carrier is then moved upward so that the next exposure will visualize the proximal portion of the femoral vein as well as the iliac vein and the x-ray technique changed accordingly. The x-ray change consists of a step up of 20 K.V. above the technique used for the thigh and leg and the time and M.A. are not changed. When all is in readiness the tourniquet is quickly removed and another exposure immediately made. This method has been satisfactory and obviates attempts to visualize varying thickness of tissues at one time and avoids surgical exposure of the veins at the ankle.

Allen, Linton and Donaldson[1] prefer determinations of the pulse, temperature and respiration every four hours postoperatively and, if there is any persistent or undue elevation of any one of these, feel that repeated examination for any clinical signs of phlebothrombosis should be made. It is felt that even small fragments of a propagating thrombi may effect the pulse rate, respiration, or temperature. DeTakats[21] feels that a slight rise of temperature and a persistently elevated pulse rate without apparent cause, after the fourth or fifth postoperative day, should make one seek signs of a latent thrombosis. He feels that skin temperatures of the foot are of value as well as soreness of the sole of the foot to touch. Allen and his co-workers[1] mention in the

order of their frequency a number of positive findings. In their series, some degree of swelling was found in 67 per cent of the 237 cases examined, tenderness was found in 61 per cent of 231 cases, and in 139 cases, Homan's dorsiflexion sign was found. In 41 per cent of their series, pulmonary embolism, however, was the first evidence of deep venous thrombosis. Electrocardiographic changes in the early recognition of pulmonary embolism as a consequence of strain on the right ventricle have been stressed.[43, 62, 64]

Veal and Hussey[93] point out that of 84 cases of deep venous thrombosis of the lower extremity, in 16, pulmonary embolism was the initial symptom that directed attention to the venous thrombosis, and in 23 additional cases pulmonary embolism preceded surgical ligation of the vein.

* * *

The treatment of thromboembolism includes not only therapeutic implications but also prophylaxis. This has been emphasized by Ochsner and DeBakey.[70] In the production of intravascular thrombosis, there are predisposing factors and precipitating factors. Principally there is a combination of trauma, increased coagulability of the blood, and slowing of the circulation. Predisposing factors are cardiovascular disease,[9, 77, 82] seasonal variation,[71] foci of infection, varicosities, constitutional diathesis, degenerative vascular changes, age,[1, 90] smoking,[70] overweight,[40, 89] debility, decreased cardiac tone, anemia, polycythemia, malignant disease.[89] Injury to tissue as result of an operation, accidental trauma, delivery, or invasion by infection or malignant disease, results in increased coagulability of blood because of the absorption into the blood stream of noxious substances derived from traumatized cells. The increased blood coagulability is the result of changes in the plasma and the formed elements of the blood. The changes in the plasma consist of increased viscosity, hypoproteinemia, hyperglobulinemia, increased fibrinogen content, increased antitryptic power, increased peptidase, increased calcium content, decreased carbon dioxide combining power, and increased sedimentation rate. Thrombocytes and leucocytes become increased, and erythrocytes become decreased. Increased agglutinability of the thrombocytes occurs. It is therefore essential to prepare the individual for operation by improving his cardiac status, removing foci of infection, treating varicosities or having the individual wear compression bandages as advocated by Ochsner and DeBakey,[70] having the individual stop smoking immediately preoperatively and postoperatively, reduce weight, proper hydration, and correction of anemia. Operatively it is essential to employ atraumatic surgery with a minimal of tissue handling, sharp dissection, and absolute hemostasis with fine non-absorbable suture,[63] prevention of circulatory collapse and the avoidance of chilling. It is to be emphasized that merely putting an individual to bed predisposes to the formation of venous thrombosis. Hunter, Sneeden, Robertson and Synder[47] noted thrombi of various age to be present in 52.7 per cent of the 351 autopsies of unselected middle aged and elderly patients who had been forced to bed for varying periods before their death. They studied microscopically 209 pairs of soleus and gastrocnemii muscles. They observed that the thrombosis tends to be bilateral and will be found in and along the soleus muscle much more frequently than the gastrocnemius. Hunter, Krygier, Kennedy, and Sneeden,[46] in a comparative series of 200 autopsies done on individuals who had been in bed before death without exercise, and 200 autopsies done on individuals who exercised or were ambulatory to within 48 hours of death report that there was a reduction of leg vein thrombosis from 59 to 44 per cent (15 per cent). In the first group 59.7 per cent of the medical patients had phlebothrombosis of the calf, while in the second study it was 37.7 per cent, a drop of 20 per cent and they felt this was as a response to a planned increase in exercise of these individuals. They feel that the efficient return of the blood to the heart from the deep veins of the extremities depends on the circulation time, compressive action of muscles, mechanical obstruction, negative pressure in the abdomen and thorax, and gravity. Smith and Allen[88] in a study of 66 persons found that the most important influence on the time of the circulation of blood was the temperature of the skin of the extremities. The speed of flow was decreased when the skin was cool, and accentuated when it was warm, irrespective of how the vasodilatation was produced. Exercise and elevation had the same effect. Potts and Smith[81] following a study of 500 patients given exercises postoperatively (among whom there was no instance of venous thrombosis or pulmonary embolism) concluded that simultaneous deep breaths and active leg exercises at regular intervals would vary the blood flow, not only in the legs, but in the pelvic veins as well, and thus prevent stasis and venous thrombosis. Experimentally they demonstrated that elevation of the lower extremities in animals (dogs) or muscular contraction increased the blood flow markedly as measured by the venturimeter. To test the observation of Luckhardt, Alpert, and Smith[57] that the reflext inhibition of respiration will temporarily obstruct the return flow of blood to the heart, Potts and Smith[81] simulated this condition by over-inflating the dog's lungs. This stopped blood flow from the vena cava (inferior) almost completely and release of pulmonary obstruction showed a prompt return. Hunter, et al[46] stress that the common denominator of all phlebothrombosis and pulmonary embolism is confinement to bed. Dock[26] has recently emphasized not only the frequency of pulmonary embolism originating from the leg and pelvic veins of bedridden persons, but also other serious effects of confinement as well. Simpson[87] noted the striking increase in the number of deaths from pulmonary embolism among elderly people who entered shelters and would sit, night after night, with the pressure of the crossbars on the back of their thighs and on the popliteal vessels, with the legs dependent. It was noted that 24 persons had died from pulmonary embolism in 1940, in contrast to 4 in 1939. The condition causing this became known as shelter leg. Posture in bed ideally is flexion of the thigh on the trunk but no flexion of the leg as is used in Fowler's position. Friedlander[41] has shown that whereas flexion of the thigh on the trunk theoretically produces compression of the femoroiliac veins beneath the inguinal ligament such a position actually favors the return flow of blood. From the entire foregoing discussion it is obvious that deep breathing exercises should be done regularly by the individual with constant movement of his muscles and finally elevation of the extremities. Early ambulation is another important factor postoperatively in preventing retardation of blood flow and the prevention of thromboembolism. This has many advocates.[13, 99]

* * *

Barker, et al have approached the problem of prevention by the use of anticoagulants. In a report[4] of observations on 1,000 surgical patients who were given dicumarol in their immediate postoperative period for the purpose of preventing venous thrombosis and pulmonary embolism they were able to prevent fatal pulmonary embolism even after the diagnosis of thrombosis had been made. A thrombotic tendency had already been demonstrated in 379 patients in that they had had thrombosis or embolism, and on 438 abdominal hysterectomies where the statistical risk is great. They report

no cases of fatal pulmonary embolism. There were 39 cases (3.9 per cent) of minor bleeding and 25 cases (2.5 per cent) of major bleeding easily controlled with the use of transfusion and large doses of vitamin K. The dosage of dicumarol given was 300 mg. the first day, 200 mg. the second and on successive days according to the prothrombin time, which should be kept between 10 to 30 per cent of normal. They have used the drug for periods as long as three months. Murray[65] reports that following an initial pulmonary infarction, not one of his 45 heparinized patients suffered a fatal pulmonary embolism. Evans[32] of the Lahey Clinic, in a short series of cases, in which he depends mainly on dicumarol (with which he sometimes combined heparin) presents certain advantages for this line of treatment, although it must be admitted that the death of two patients in 56 from hemorrhage should be considered in evaluating this treatment. The advantages of dicumarol are that it is cheap and can be given by mouth. Its action is accumulative for days and this has been a constant pitfall.

* * *

Once the diagnosis of thromboembolism or phlebothrombosis is made there is no dissenting voice except the adherents of the use of anticoagulant therapy as to the treatment that is required. Once an embolus has occurred it is imperative to take steps to prevent further emboli, because of the strong possibility of recurrence. Ziak[100] showed that in 70 per cent of patients with fatal pulmonary embolism there was a previous non-fatal pulmonary infarct, the result of embolism. Only 8.3 per cent of patients die in less than 10 minutes and 33 per cent die in less than one hour of massive pulmonary emboli.[22] Approximately 60 per cent of the patients with fatal emboli live from 1 hour to several days.[23] These figures refer only to the fatal emboli, but it is sufficiently known that only about 1/5 to ¼ of these emboli are fatal at the onset.[5] This allows some time for treatment. In this regard, it is well recognized that the cause of death is widespread radiation of automatic reflexes affecting the heart, pulmonary tree, the bronchi and the gastrointestinal tract. The treatment is emergency ligation of the involved veins. This is not infrequently difficult to detect and certain clinics have resorted to bilateral femoral vein ligation. That this can be done successfully, however, has been demonstrated ably by Fine and Sears,[33] Homans,[42] and Allen and his co-workers.[1] One is impressed by the attempts of various surgeons to preserve the profunda and saphenous veins. That this is dangerous in thrombosis of the veins of the lower extremities is attested by reports of death from subsequent emboli coming from the profunda vein. Homans[44] reports a case where ligation had been done below the profunda and the individual died of an embolus from the profunda. There are two possible sources of accident in case of division of the superficial femoral vein in the leg showing clinical signs of thrombosis; a separate deep thrombosis in the thigh, already present or to occur later, which may give rise to future embolism; there may be a separate, silent thrombosis in the opposite leg. Frykholm[35] has shown that an independent thrombosis frequently starts in the veins of the deep muscle of the thigh, whence it enters the common femoral by way of the great profunda branches. Homans[44] is inclined to think that in old thrombotic processes attended by embolism, one should always divide the common femoral vein above the profunda or even higher. He[44] divides quiet deep venous thrombosis into four main groups, (1) the initial thrombosis in the lower leg develops into a thrombophlebitis and causes the typical swelling of phlegmasia alba dolens; (2) the initial thrombosis remains confined to the veins of the lower leg; (3) the initial thrombosis propagates through the popliteal into the femoral vein and forms a soft floating mass capable of causing pulmonary embolism; and (4) the initial thrombosis propagates through the popliteal into the femoral veins, where it becomes more or less adherent, without causing obstruction, and may come to occupy most of the femoral and external iliac advancing at times into the common iliac vein and even into the vena cava. He states that most surgeons hold that neither healing nor freedom from embolism are 15 to 1, 25 to 1, or even higher, and they are not justified in withholding a safe, easily performed interruption of the femoral vein. He feels that experience has shown that non-operative treatment is more often followed by recurrence than by a permanent cure, and since embolism is always a threat, an early femoral interruption should be done in all quiet deep venous thrombosis. The question is as to the level of division of the vein. In the type where the thrombus appears limited to the leg, he feels that the point of section should be the superficial femoral vein at the groin just distal to the profunda femoris. Where there is propagation of a deep thrombosis of the calf into the femoral vein in the form of a non-obstructive, non-adherent thrombus, he favors a division of the superficial femoral vein, but if there has been proagation into the common femoral vein, the section should be proximal to the entrance of the profunda. He favors the ligation of the common iliac vein on the basis of anatomical grounds which seem to indicate a better collateral supply. He does not favor bilateral surgical treatment unless there are definite signs to warrant it. He feels that where bilateral ligation is necessary the inferior vena cava should be ligated. This is supported by the work of Collins, Jones, and Nelson[12] who found that following such ligation the venous pressure in the legs is raised only for a short time, for it falls rapidly in the first weeks after operation. They advocated this for thrombosis in the pelvic veins, particularly with additional ligation of the uterine and ovarian veins. Allen, Linton, and Donaldson[1] feel that all cases of venous thrombosis of the lower extremities should be ligated even before there is extension of the process to the femoral vein. Between 1937 and 1943 they interrupted the femoral vein or veins of 202 patients. Bilateral operations, either at the same time or at subsequent dates, bring the total deep veins interrupted to 280. The tremendous increase is partly due to the increased number of bilateral ligations. It seems to make little difference whether the ligation is above or below the profunda but they favor ligating the superficial femoral vein in 75-80 per cent of the cases. Veal and Hussey[93] are of the opinion that in all cases of venous thrombosis there is at some time danger of embolism. They present statistics of 68 cases of venous thrombosis in which pulmonary embolism was not the first manifestation and show that there is no safe period from embolism for at least up to four months. They also present the evidence that usually the emboli are small and raise from fresh clot engrafted on the older, organizing thrombus. They have recently observed at necropsy three examples of death from massive pulmonary embolism in cases of acute iliofemoral thrombophlebitis. In each the embolus originated from a fresh thrombus engrafted on the older clot in the iliac vein. They prefer to ligate at a point just distal to the entrance of the saphenous vein unless there is indication of an extension upward, and then a higher point of ligation is selected. They did 45 cases with ligation of one femoral vein, and six additional patients both femoral veins were ligated at the same operation. The external iliac vein was ligated in only 6 cases although they feel that ligation of the common iliac vein is more desirable. This was due in 29 instances.

In 6 cases it was necessary to ligate the inferior vena cava four times because of thrombosis in both iliac veins, and twice because of extension of inflammation from the left common iliac vein to the wall of the vena cava. It is interesting that, despite their best efforts, in 45 cases in which ligation was performed before the development of pulmonary embolus, there was no instances of this complication, but in 39 cases, in which the operation was done after at least one episode of pulmonary embolus, there were nine cases of postligation embolism. Fine and Starr[33] give the following indications for direct exposure of the iliac (1) swelling of the thigh (2) pain in the groin and tenderness in the groin or along the upper part of the femoral vein, (3) swelling of the femoral lymph nodes, (4) cyanosis of the thigh, and (5) dilatation of the superficial veins of the thigh. If the femoral vein has been exposed and there is evidence of inflammation, the iliac should then be exposed. Ligation of the common femoral vein is the method of choice in the presence of signs indicating involvement limited to the deep veins below the knee, or if pulmonary embolism had occurred, even in the absence of all signs of thrombosis. They rightly emphasize the necessity of ligating the common femoral vein rather than the superficial femoral vein because of the possibility of pulmonary embolism from the profunda vein, a small portion of which can only be visualized at operation. In a previous report[33] they pointed out that fatal embolism has occurred from thrombosis of the vena profunda femoris when it has been spared by ligation of the superficial femoral vein. If division of the vein is to be done below the head of the thrombus it is important that thrombectomy be done.[51,52,53,70] DeTakats and Fowler[22] are definitely of the opinion that when the patient is seen in the stage where there is a tender swollen thigh or groin, the clot is not to be aspirated nor is the vein ligated above the profunda. Also, if the thrombus is below the knee, but the patient has been ambulatory for more than one week without any extension to the thigh, the veins are not tied for once the clot is organized it has lost its embolizing property.

X-ray has been used in the treatment of intravascular thrombosis as well as sulfanilamide and penicillin.

* * *

The diagnosis of a massive pulmonary embolism is easy with sudden shock and death within ten minutes. Recognition is based on sudden onset of shock with weak pulse, restlessness, difficult rapid breathing, sweating and pallor, pain in chest, fainting, collapse or unconsciousness. There may be weakness, cyanosis, thready pulse, cardiac arrythmias, and extreme prostration, fall in blood pressure and fear of impending danger. It has been pointed out that only about one-fifth to one-fourth of these emboli are fatal at the first insult.[5] If there is evidence of a massive embolus, one method of treatment that has been tried is the Trendelenberg operation with removal of the clot from the pulmonary artery. Graves[36] reviews 194 cases of pulmonary embolism which were 0.184 per cent of total admittances. The number of emboli occurring in each patient was 1 in 140 patients, 2 in 26 patients, 3 in 19, 4 in 2, 5 in 1, 6 in 1, 8 in 1, and 4 patients had multiple emboli. In the last four patients the emboli were not determinable from history but were found at autopsy. Of the 140 many survived the crisis for hours, and active treatment might have benefited them. In only 45 of the 154 fatal cases did death occur in less than one hour. Fifty-five patients lived from 1 to 24 hours and 47 lived more than one day. The site of lodgment of the embolus was most commonly in the pulmonary branch of the right lower lobe. The site of embolus determined at autopsy showed 68 at the bifurcation of the main pulmonary vessel, 13 on the right and 11 on the left in the main pulmonary branches, 14 in the right upper branch, 16 in the right middle branch and 82 in the right lower, 14 in the left upper branch and 60 in the left lower.

* * *

DeTakats and Fowler[22] feel that there is sufficient time to treat the majority of these patients, first of all for the episode itself, and second for the prevention of a second or third infarct, which might become increasingly dangerous. The patient is immediately placed in a semi-sitting position, oxygen started, atropine sulfate gr. 1/75 given and if this does not cause flushing of the face and dilatation of the pupil this is to be repeated, papaverine hydrochloride ½ gr. is given. They advocate repetition of the atropine and papaverine three or four times a day. The rationale of this emergency treatment is based on the assumption that embolism kills not only because of asphyia, failure of the right heart and insufficient venous return of the left heart. True enough these conditions prevail when the main pulmonary artery or both right and left branches are simultaneously obstructed. However, it has been shown that patients may die from a small embolus obstructing an insignificant area in the lung.[23] Also, on the basis of animal experiments, it has been concluded that a widespread radiation of autonomic reflexes occurs during embolism, which affects the heart, the pulmonary vascular tree, the bronchi, and gastrointestinal tract.[23] These reflexes are predominantly vagal and produce spasm of smooth muscle; thus the use of atropine and papaverine seems indicated. Morphine and digitalis both sensitize the vagus and thus may facilitate such reflexes. Epinephrine, frequently employed in acute hypertension, may lead to pulmonary edema in the presence of an increased pressure in the pulmonary artery which exists in cases of pulmonary embolism. DeTakats and Fowler[22] state that out of 45 patients reviewed, 35 were relieved of their symptoms and did not die of their attack. Ten patients died and six autopsies were done. These autopsies showed massive arterial obstructions with coils of clots in the right ventricle. Attention is directed to the syndrome of the slowly fatal pulmonary embolism, when death finally occurs from right heart failure many hours or several days after the initial attack. Pilcher[80] suggests the use of embolectomy for this. Robertson[84] believes that if a main pulmonary branch is occluded, findings of pulmonary congestion soon develop in the opposite lung, due to the increased blood flow. There may be evidences of acute dilatation of the right ventricle, peripheral venous dilatation and sometimes pulsation may be noted. This is usually associated with marked accentuation of the second pulmonic sound due to increased pulmonic pressure. The x-ray diagnosis is disappointing. The wedge shaped infarct is the great exception,[38] and it should be remembered that not all emboli produce hemorrhagic infarcts; anemic areas may be translucent; areas of atelectasis or emphysema may be visible, depending on the extent of bronchial obstruction. Pleuritic effusions, embolic atelectasis, and embolic pneumonias may mask the origin of the lesion. DeTakats and Fowler[22] used adequate heparin-dicumarol therapy in 31 patients with no reduction in the size of the pulmonary infarct.

In a review of nine cases of non-fatal pulmonary embolism seen recently at the DeWitt General Hospital, two of which were personally observed during an embolism, one is impressed by the frequent diagnosis of pneumonia. It is of interest that although each one experienced a major embolic accident, they all survived, although only four cases were treated with vein ligation, one iliac, two common femoral and one superficial femoral.

REPORT OF CASE

CASE 1.—Case Report—O. B., age 22, appendectomy Feb. 28, 1945, spinal anesthesia, for acute appendicitis. Patient had an upper respiratory infection postoperatively, requiring penicillin. He experienced a severe pain in the right chest with hemoptysis seven days postoperatively. He was treated with morphine, oxygen, and intramuscular penicillin, but continued to expectorate bright red blood. Portable x-ray film demonstrated no pulmonary pathology. Repeated examination showed nothing except a temperature of 100, pulse of 100, and respiration of 24. The possibility of a pulmonary embolus was entertained, but there were a good many signs of pneumonic reaction and no changes in the extremities. He finally showed plantar pain and tenderness followed by tenderness in the calf of the leg pain on dorsiflexion of the foot. Right common femoral vein ligation without division of any venous tributary was done two weeks after the first embolus, because of the signs of propagating thrombosis. Heparin was given continually for four days postoperatively. This was followed by recovery from the pulmonary condition. Repeated measurements have shown no edema of the extremity, and this has been helped by the use of a supportive bandage.

This case is reported because it presents a typical case history. It also shows the necessity for close observation of these cases in which an embolus occurs and phlebothrombosis is suspected.

* * *

It has been repeatedly observed by us that if careful observation of the case is made once the diagnosis is suspected, early detection of a propagating thrombus can be made and adequate treatment instituted. As has been previously stated the initial embolus is rarely fatal, and it is felt that it is not necessary to do bilateral venous ligation on suspicion only. Careful observation has disclosed increase in size of the extremity, plantar or calf tenderness, and tenderness along the course of the deep veins. An additional factor was introduced in this case which consists in the use of an anticoagulant following the vein ligation. It has been noted, in the observation of 42 cases of deep venous thrombosis of the lower extremities, that the degree of lymphedema varies with the extent and site of the thrombus. The more the extent and the more central the thrombus, the greater is the lymphedema. It is extremely important to limit the extent of the thrombus so as to preserve all possible collaterals. Ligation of a vein certainly will favor propagation of a thrombus by stasis in the ligated segment. This should be prevented by the use of anticoagulants. This will be discussed in detail subsequently under the heading of lymphedema. We have also noted that the condition can and does occur frequently in young individuals with equal distribution as to the extremities involved. In all cases the condition was heralded by an embolism. They have been observed from periods of 3 months to 18 months with no recurrence of their thrombosis or embolism. This is adequate proof that not all individuals are prone to recurrence. The problem of edema that all the cases presented will be discussed subsequently.

* * *

ACUTE DEEP THROMBOPHLEBITIS

The problem of acute deep thrombophlebitis has been deliberately excluded from the discussion to this point for it is felt that it has no bearing on the problem of thromboembolism as discussed. Despite stated opinions to the contrary,[34, 93, 97] it is felt that there is a fundamental difference between acute deep femoroiliac thrombophlebitis and quiet deep venous thrombosis, phlebothrombosis. It is the conviction of Ochsner and DeBakey,[69, 71, 72, 73] and this is concurred by Homans,[42] that from etiologic, clinical, prognostic, and therapeutic standpoints, it is necessary to distinguish between these two major types. The clotting in thrombophlebitis is the result of injury to the vascular endothelium from mechanical trauma, chemical injury, or bacterial invasion, whereas in phlebothrombosis the intravascular thrombus formations are due to alterations in the cellular and fluid consttiuents of blood, which increase the clotting tendency, and to venous stasis. The clinical manifestations of the two types of intravenous clotting are entirely different. In thrombophlebitis, the symptoms are marked, whereas in phlebothrombosis there are few, if any clinical manifestations. The prognostic significance of this differentiation lies in the fact that in thrombophlebitis, unless there is suppuration, which is rare, the clot is firmly adherent to the vein wall and therefore is not likely to become detached and result in embolism. Because of the associated inflammatory process, it is usually accompanied by profound arterial spasm resulting in edema which may persist and cause prolonged disability. On the other hand, the coagulum in phlebothrombosis is loosely attached to the vein wall and can be detached easily, resulting in embolism. The therapy of the two conditions is also different. Because the clinical manifestations in thrombophlebitis are due to associated vasospasm, the relief of vasospasm usually results in prompt relief of symptoms. On the other hand, in phlebothrombosis, either thrombectomy or the ligation of the vein above the thrombus is imperative in order to prevent a possible fatality from pulmonary embolism. The vascular changes in thrombophlebitis can be divided into those occurring in the perivenous tissue and those in the vein wall itself. The perivenous changes consist principally of a lymphangitis. According to Koester[50] the thrombophlebitis process is in reality a lymphangitis of the veins in which the infection is carried to the veins by means of lymph channels. The importance of the perivenous lymphangitis has been emphasized by Karsner.[49] Homans,[46] Homans and Zollinger.[45] As a result of the perivenous involvement, fibrinous exudation into the perivascular spaces and the accumulation of perivascular fluids resulting in edema are likely to occur. In addition to the perivenous changes there are changes within the wall of the vein, consisting primarily of hyperemia, cellular and serous exudation, and a destruction of endothelium, which is probably responsible for the thrombosis. The intravascular changes which occur in thrombophlebitis consist of the development of thrombi. The clot or thrombus produced in thrombophlebitis differs from that produced in phlebothrombosis in that the former is attached to the vein wall. There also becomes adhered to the vessel wall in this area, leucocytes and fibrin, resulting in a white thrombus. This is different from the red or coagulation thrombus which occurs in simple intravascular clotting. The white thrombus because of destruction of the vascular endothelium is firmly attached in contrast to the red thrombus which is loose, detaches easily, and can cause pulmonary embolism.

* * *

The clinical picture is a consequence of the inflammatory reaction within the vein wall and the associated vasospasm resulting from impulses originating in the thrombophlebitic segment; there is diminished vascularity with pain, swelling and persistence of fever. There is pain in the region of the involved vein, and swelling of the involved extremity. The classical picture of deep thrombophlebitis is phlegmasia alba dolens, in which the pyrexia ranges up to 103° F, associated with severe pain and swelling in the involved extremity. The fever is probably due to the inflammatory reaction within the vein wall. DeBakey and Ochsner[70] have demonstrated that the pain is due to ischemia, as evidenced by the prompt relief following the reëstablishment of the normal blood supply to the extremity by blocking the sympathetic impulses. The edema was previously thought to

be due to increased venous pressure resulting from the obstructing thrombus in the main vessel but Ochsner and DeBakey[69,71,73] have shown clinically, and DeBakey, Burch and Ochsner[16] have shown experimentally, that the edema is secondary to severe arteriolar spasm in the extremity resulting from the vasoconstrictor impulses originating in the inflamed segment which are carried over the sympathetic nervous system. This vasoconstriction is responsible for the whiteness of the skin as noted, in phlegmasia alba dolens. This results in anoxia of the capillary endothelium, and thus increased permeability, resulting in excessive exudation of fluid into the perivascular spaces and resultant edema. Once the fluid gets out of the vascular system there is difficulty in its getting back for two reasons: first, absorption is interfered with because of the increased venule pressure resulting from venule spasm; and second, the pump which is responsible for the movement of lymph—namely, arteriolar pulsation is lost.[78] There is no danger of embolism unless there is a secondary upward propagation of the thrombus, and this is usually clinically detectable.

Since there is vasospasm in cases of acute thrombophlebitis, this should be overcome. The best method of producing vasodilatation is the interruption of the sympathetic impulses by anesthetization of the regional sympathetic ganglia by procaine. DeBakey, Burch, and Ochsner[16] were able to demonstrate graphically that in thrombophlebitis there is a marked spasm of the arterioles and venules of the extremity. There is some spasm of the contralateral arterioles. Following the procaine block the arteriolar pulsations return to normal, relief of pain is immediate and may not recur. In approximately 90 per cent of the cases[67] the pain does not recur after the first block. In the remaining cases, however, a second injection is required to relieve the patient permanently of pain. Fever and edema disappear rapidly. The temperature returns to normal within 48 hours in about 65 per cent of the cases. In about 5 per cent of cases the pyrexia lasts longer than eight days. The swelling of the extremity, instead of lasting for months and even years, subsides very quickly with the reëstablishment of normal blood supply. In Ochsner and DeBakey's cases[68] complete subsidence of edema occurred within four days or less after treatment was begun in 50 per cent of the cases, and within 5 to 8 days in 30 per cent. In only two patients did edema last as long as 12 days. Two-thirds of the patients were discharged from the hospital on the 4th to 8th day after treatment was begun and 23 per cent from the 10 to 12 days. In follow-up lasting from 2 years to 6 months there was no recurrence of the edema.

* * *

The technique of lumbar sympathetic block is simple and the results effective in the presence of extreme vasospasm as occurs in acute deep thrombophlebitis. Ochsner and DeBakey[72] agree with Leriche and Kunlin[54] that even repeated sympathetic blocks may be required. Ochsner and DeBakey[72] recommend one injection every 24 hours until the individual is fever free. The individual is placed on his abdomen if possible with a pillow underneath so as to straighten the lumbar curve. The lateral decubitus position may be used. The skin is prepared with ether and merthiolate. The crest of the ilium is identified and the 3rd lumbar interspace then located. The spines of the 2nd, 3rd and 4th lumbar vertebrae are then located and skin wheals of procaine placed approximately 2½ finger breaths lateral to the upper part of the spinous process (about 4½ to 5 cm.) 13 cm. (5″) long No. 20 gauge needles are then slowly inserted through the muscles underneath injecting procaine as the procedure is done until the transverse spinous process is struck. This point is important as the sympathetic ganglia lie in a plane about 2½ finger breaths deeper (about 4-5 cm.). This point is then noted on the needle and the needle is partly withdrawn and reinserted in a plane slightly anterior to the transverse process and toward the midline until the body of the vertebrae is felt or until the point noted on the needle is reached.

Sometimes a branch of the lumbosacral plexus is struck with resultant radiation of pain down the extremity and if this occurs the direction of the needle is changed slightly. After careful aspiration to insure against intravascular injection, 10 cc. of 1 per cent procaine hydrochloride solution is deposited in each site. If no block is affected 5 cc. more are injected. This is effective in a high percentage of cases. It is felt unnecessary to insert a needle in the first interspace as effective block has been repeatedly noted without doing this. It is important to do effective block each time and to use a minimum number of needles as this procedure even under the best of circumstances is not entirely pleasant. It is important to obtain effective block in all three needles. There are certain complications which have been observed such as striking a vessel, referred pain along the lumbosacral plexus and temporary anesthesia in distribution of the lumbosacral plexus, pain along the distribution of the genitofemoral nerve, vasomotor collapse and inadvertent intraspinal anesthesia. Each of these can be averted with care and if properly evaluated corrections can be made so that future blocks are effective. The most common error is the use of too short a needle with resultant anesthesia merely of a portion of the lumbar plexus. This can easily be obviated by deeper injection.

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CHRONIC LYMPHEDEMA SECONDARY TO INTRAVENOUS THROMBOSIS

It is felt propitious at present to discuss the problem of chronic lymphedema caused by venous obstruction. One is not entirely impressed by repeated statements that all cases suspected of phlebothrombosis should be treated by vein ligation before clinical signs are evident. That this can be done successfully, however, has been ably demonstrated by Allen, Linton and Donaldson.[1] This presents a serious complication when it is noted that in 62 patients (47.4 per cent) without infarcts, no thrombi were found at operation. Chronic lymphedema is a serious disability and is not lightly to be regarded. I wish to particularly emphasize the golden period of treatment of these conditions which if not vigorously pursued are unsuccessful and allows the disease to come to the undesirable sequela of edema. This is practically impossible to cure when fixed despite sporadic reports in the literature to the contrary. The treatment used should not only spare life but should also prevent morbidity in the form of persistent edema. This is especially true where ligations are done. It is these cases that demonstrate marked incapacity and persistent disability. Ligation of major veins is not an innocuous procedure. It is of interest however, that mere ligation does not cause permanent edema but that the associated thrombus does, particularly if extensive. Another consideration is the development of secondary varicosities. These have been treated successfully by ligation by Buxton, Farris, Moyer, and Coller.[10] If this was not successful femoral vein ligation has been done. At this vascular center we have adopted a conservative course of treatment consisting of elevation of the bed to 40° with absolute bed rest until the edema subsides and then dependency with the use of elastic supportive bandages. The individual is educated to the condition he has and is definitely instructed as to decreasing periods of rest period and the necessity of rewrap-

ping elastic supports after each elevation and at least three times daily. We have not been favorably impressed with the use of the elastic stocking.

* * *

In a review of 9 cases of phlebothrombosis, 33 cases of deep thrombophlebitis, and 7 cases of axillary thrombosis it is noted lymphedema was present in all but 2 cases. In 34 cases of deep thrombophlebitis seen in the chronic stage, the duration varying from 2 months to 24 years, one is impressed by the disabling presence of lymphedema. This was frequently not incapacitating but was certainly disabling. Of this number 10 were treated with repeated lumbar sympathetic ganglion blocks in the acute stage and all had lymphedema despite dramatic relief from the blocks. The edema increased on dependency and on activity. The diagnosis in all ten was confirmed by phlebography. It is felt that as far as edema in the late stage is concerned variations of early treatment seemed without effect. It was thought that possibly lumbar sympathetic ganglia block in the late stages might be of help and this was used in 16 cases, but this had no particular effect except in one case it was felt that such a successful test was adequate reason for a lumbar sympathectomy, but this proved ineffective in reducing the edema. The sympathetic ganglia blocks were effective in improving the color but had no effect on the extent of the edema or comfort. We are increasingly of the opinion that the prevention of lymphedema, after active spasm has subsided, by the use of supportive elastic bandages is necessary every time the extremity is dependent. The time to treat the lymphedema is in its very beginning with active therapy and particularly the use of elastic supportive bandages for 6 months or longer.

* * *

We have long sought a means of detecting a tendency to thrombosis before it occurs. Interest in preventing excessive coagulability of the blood has risen since the advent of coagulants but this must necessarily be on an empiric and statistical basis. In order to use such drugs preventively and not only therapeutically, it is necessary to use a simple diagnostic test. Repeated determinations of bleeding and clotting times (Lee & White) in 65 cases revealed no changes in the acute stage. The same is true of the usual prothrombin time determinations but prothrombin time determined on diluted plasma does detect a tendency toward increased clotting but the method requires skilled laboratory technique.[8] Estimation of the erythrocytic sedimentation rate has been of considerably more value and is used as an index of activity. The response of such patients to heparin is strikingly diminished and this decreased heparin tolerance has been used extensively for determining the increase in clotting factors. Such factors have been known to exist in the postoperative state in Buerger's disease, and in the presence of any kind of intravascular clotting by DeTakats.[19] Other factors such as neurogenic influences[20] and the thromboplastic properties of digitalis[25] have been investigated. Conversely, drugs like prostigmine[20] or sulfa compounds[18] seemed to decrease the increased clotting factors. It has been used to determine the heparin response of such patients who were either suspected of harboring thrombi or who have shown previous evidence of thrombosis by DeTakats and Fowler.[22] 1 cc. (10 mg.) of heparin is injected intravenously. Coagulation times are determined with a capillary tube before, and 10, 20 and 30 minutes after the injection of heparin. They report that a flat tolerance curve indicates the presence or imminence of thrombosis. The normal response can be restored by heparin, by dicoumarol by sulfur compounds, or by prostigmine.[18,19,20,22] We attempted to test the validity of the determination in 6 cases and found no conformity of the heparin curve to the clinical condition. We modified the test by using the Lee and White method of clotting time.*

Cases 1 and 3 were cases of superficial phlebitis in the active stage who showed a maximal rise and this was true of case 2, an acute Buergers disease, and case 4 which was in the active stage of repeated superficial thrombosis as well as a subsequent episode of acute deep thrombophlebitis. Cases 5, 6 and 7 were also active cases of superficial thrombophlebitis where there appeared to be better correlation of the erythrocytic sedimentation rate. We are unable to use the method effectively.

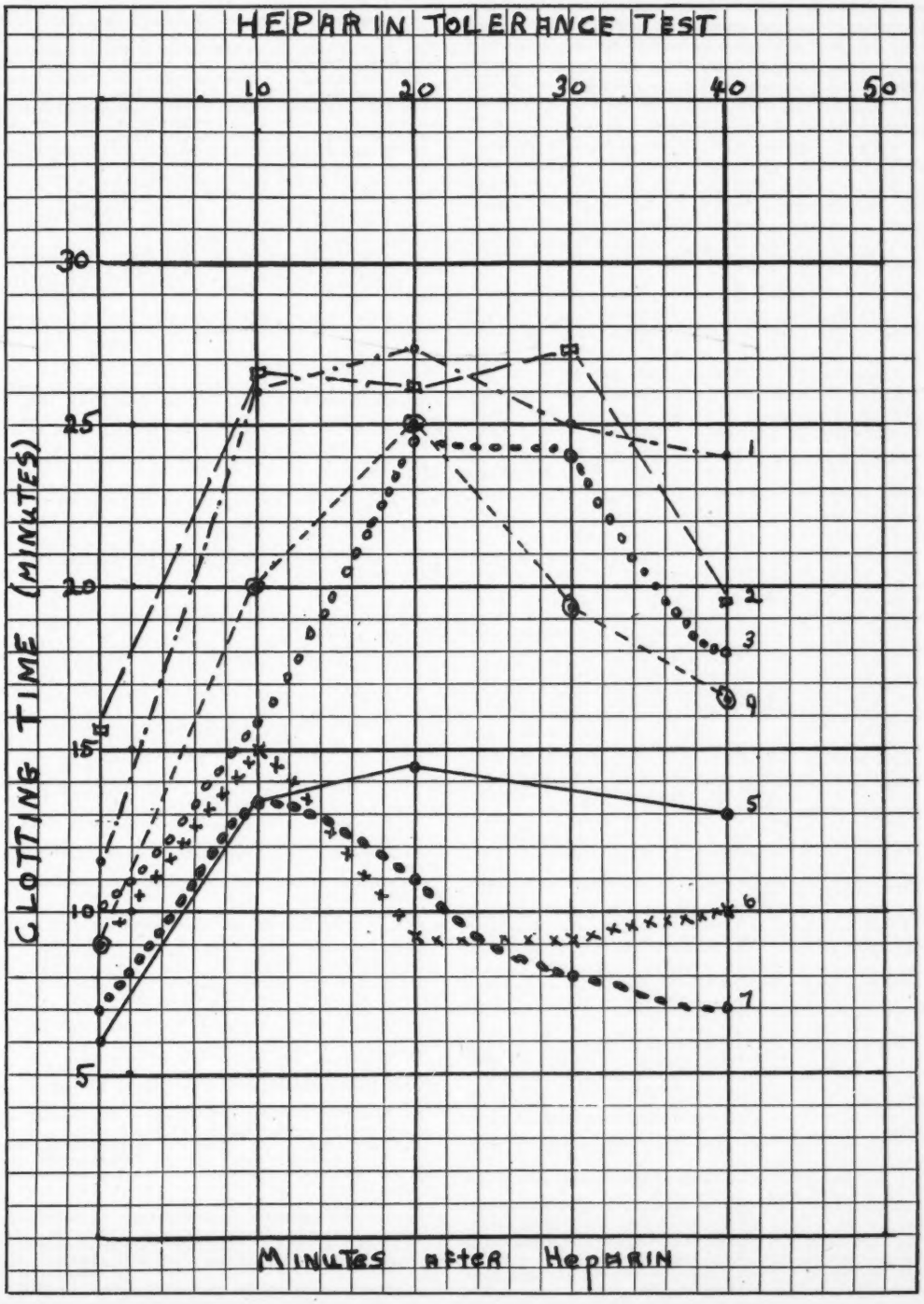
* * *

AXILLARY THROMBOSIS

We have collected seven cases of axillary thrombosis in individuals varying from 20 to 37 years of age. The causes were from mild to severe and as follows: climbing a rope, throwing rocks, twisting a propeller, spontaneous, carrying buckets, and playing tennis. Other causes that have been reported are grinding spark plugs, stirring clothes while washing, pulling oneself up by holding on to the head of the bed, checking and restraining a horse, swinging a golf club, pitching a baseball, lifting a heavy pressing iron, lifting a cake of ice, lifting a storage battery out of a car, and putting books on a shelf.[48] From this it is suggestive that some sort of a strain is necessary for its production. The right arm was affected in five instances and the left in two. The onset varied from acute involvement to gradual swelling. Pain experienced in the arm is usually followed by swelling and cyanosis which may require several hours or days to develop after the strain. The diagnosis in all cases was confirmed by phlebography which shows a typical venous pattern of obstruction of the axillary vein. There is associated arterial spasm in the early stage, with the hand being colder, and this is best treated with stellate gangloin block repeated until the pain and edema subside. We have used the anterior approach exclusively because of the ease of performance and the facility with which it can be taught. The method is that described by Ochsner and DeBakey.[74] The individual lies on his back with the head turned to the opposite side. However, instead of selecting a point 1 cm. medial to the midpoint of the clavicle merely the midpoint of the clavicle is selected and intracutaneous wheal made immediately over the upper border of the clavicle. A fine lumbar puncture needle (No. 22 gauge) is introduced on a horizontal level with the clavicle and directed posteriorly and medially at a 45 degree angle with the midline. The point of the needle after being introduced for a distance of 6 to 7 cm. impinges against the anterolateral surface of the body of the seventh cervical vertebra, or at the junction between the seventh cervical and the first thoracic vertebra, where the stellate ganglion lies. After ascertaining by aspiration that the needle is not in a vessel 10 cc. of 2 per cent procaine is injected. A satisfactory injection is determined by the presence of Horner's syndrome, anhydrosis and an increase in warmth of the extremity on the injected side. These injections are repeated every 24 hours until complete relief is experienced. The procedure is not entirely innocuous and some observed complications which are not severe have been chylopneumothorax, pneumothorax aspiration of blood from presumably the vertebral artery, and aspiration of spinal fluid. As experience increases these do not occur. The individuals, however, are subject to pneumothorax, and any pain along the shoulder or anterior chest should be investigated with x-ray. With

* These were performed by Lt. Jack D. Davidson.

proper treatment the edema subsides but soon there is increased prominence of the superficial veins about the shoulder. Several theories have been advanced for the cause of this condition. Von Schrotter[96] who first described the entity in 1884, maintained that the stretching of the muscle stretched the axillary vein and caused a localized reaction and thrombosis. Cadenat[11] believed that the respiratory effort that was associated with strain distended the vein and produced a change in the intimal lining of the vessel leading to thrombosis. Lowenstein[56]



contended that holding the arm in the abducted position distended the axillary vein and caused the costocoracoid ligament and subclavius muscle to indent it. This distention plus pressure upon the vein was sufficient to produce thrombosis. Gould and Patey[37] confirm these findings, and in addition, demonstrated a valve present at the level of the subclavius muscle which ruptured following pressure by the muscle on the axillary vein. Veal and McFetridge,[94] on the other hand, held that the thrombosis was due to a compression of the vein below the head of the humerus against the subscapularis muscle. These theories do not explain the quiet type of thrombosis without apparent cause. It may be that when thrombosis develops during sleep it is probably caused by a prolonged compression of the vein induced by the position of the arm, particularly when it is elevated over the head or folded under the body. This obstructs venous flow, reduces oxygen content of the blood with intimal changes, and results in thrombosis.[91] It is also difficult to understand the failure of these upper extremity thrombosis to produce pulmonary emboli.

Of the seven cases seen at De Witt General Hospital 1-12 months after the acute involvement all presented edema, slight cyanosis and prominent collateral veins about the shoulder. The venous pressure was uniformly elevated and the circulation time prolonged on the affected side. In each case phlebography confirmed the diagnosis of axillary obstruction. They were treated with extreme elevation and repeated sympathetic block without marked change. It is emphasized that the early adequate treatment is the most important in the prevention of the lymphedema which is so disabling.

De Witt General Hospital.

REFERENCES

1. Allen, A. W., Linton, R. R., and Donaldson, G. A.: Thrombosis and Embolism, Review of 202 Patients Treated by Femoral Vein Interruption, Ann. Surg. 118:728, 1943.

2. Aschoff: Wien. Klin. Wchnschr., 51:127, 1938.

3. Baker, E. C., and Miller, F. A.: Further Experiences with Venography, Radiology, 43:129-34 (Aug.), 1944.

4. Barker, N. M., Cromer, H. E., Hurn, M., and Waugh, J. M.: The Use of Dicumarol in the Prevention of Postoperative Thrombosis and Embolisms with Special Reference to the Dosage and Safe Administration, Surgery, 17:207-17 (Feb.), 1945.

5. Barker, N. W., Nygaard, K. K., Walter W., and Priestley, J. T.: A Statistical Study of Postoperative Venous Thrombosis and Pulmonary Embolism, Proc. Staff Meet., Mayo Clinic, 15:769, 1940; 16:1, 17, 34, 1941.

6. Bauer, G.: Venographic Study of Thrombo-embolic Problems, Acta Chir. Scandinav. Sup., 61:75, 1940.

7. Belt, J. T.: Am. J. Path., 10:129, 1934.

8. Brambel, C. E., and Laher, F. F.: Significance of Variations of Prothrombin Activity of Diluted Plasma, Proc. Soc. Exper. Biol. and Med., 53:218, 1943.

9. Burke, M.: Thrombosis: A Medical Problem, Am. J. M. Sc., 196:796, 1938.

10. Buxton, R. W., Farris, J. J., Moyer, C. A., and Coller, F. A.: Surgical Treatment of Long Standing Deep Phlebitis of Leg, A Preliminary Report, Surgery, 15:749-56 (May), 1944.

11. Cadenat, F. M.: Les Thrombophlebitis du membre superieure, Paris Med., 35:253-9, 1920.

12. Collins, C. G., Jones, J. R., and Nelson, E. W.: N. Orleans M. and S. J., 95:324, 1943.

13. Compeanu: Cited by Zava.

14. Culp, O. S.: Bull Johns Hopkins Hosp., 67:1, 1940.

15. Currens, J.: Electrocardiogram in Pulmonary Embolism, Proc. Staff Meet., Mayo Clinic, 17:502-9, 1942.

16. DeBakey, M., Burch, G. E., and Ochsner, A.: Effect of Clinical Irritation of Venous Segment on Peripheral Pulse Volume, Proc. Soc. Exper. Biol. and Med., 41:585, 1939.

17. Deneche, K.: Munchen. Med. Wchnschr., 76:1912, 1929. Cited by McCartney.

18. DeTakats, G.: The Effect of Sulfur Compounds on Blood Clotting, Surg., 14:661, 1943.

19. DeTakats, G.: Heparin Tolerance, A Test of the Clotting Mechanism, Surg., Gynec. and Obst., 77:31, 1943.

20. DeTakats, G.: The Nervous Regulation of the Clotting Mechanism, Arch. Surg., 48:105, 1944.

21. DeTakats, G.: Postoperative Thrombosis and Embolism, Illinois, M. J., 79:24-32, 1941.

22. DeTakats, G., and Fowler, E. F.: The Problem of Thrombo-Embolism, Surgery 17:153-77 (Feb.), 1945.

23. DeTakats, G., and Jeser, J. H.: Pulmonary Embolism; Suggestions for its Diagnosis, Prevention and Management, J.A.M.A., 114:1415, 1940.

24. DeTakats, G., Mayne, A., and Peterson, W. F.: Surgery, 7:819, 1940.

25. DeTakats, G., Trump, R. A., and Gilbert, N. C.: The Effect of Digitalis on Blood Clotting, J.A.M.A., 125:840, 1944.

26. Dock, W.: The Use and Abuse of Bed Rest; Conferences on Therapy, New York Hospital, N. Y. State J. Med., 44:724-30, 1940.

27. Domrich, H.: Deutsche Ztschr. f. chir., 222:20, 1930. Cited by McCartney.

28. Dos Santos, R.: Phlebographie directe; conception, technique,. premiers resultats., J. Int. de chir., 6:625, 1938.

29. Dos Santos, R.: Phlebographie d'une Veine cave inferieuse suturee, J. d'urol, 39:586, 1935.

30. Idem: Spasme Veineux du bras apres injection intraarterielle; controle phlebographique avat et apres l'infiltration, Rev. de Chir., 76:308, 1938.

31. Dougherty, J., and Homans, J.: Venography, A Clinical Study, S. G. & O., 71:697-702 (Dec.), 1940.

32. Evans, J. A.: Dicoumarol Therapy in Thrombotic Emergencies, New Eng. J. Med., 230:131-5, 1944.

33. Fine, J., and Sears, J. B.: The Prophylaxis of Pulmonary Embolism by Division of the Femoral Vein, Ann. Surg., 114:801-12 (Nov.), 1941.

34. Fine, J., Frank, W. A., and Starr, A.: Recent Experiences with Thrombophlebitis of the Lower Extremity and Pulmonary Embolism, Ann. Surg., 116:574-95 (Oct.), 1942.

35. Frykholm, R.: Pathogenesis and Mechanical Prophylaxis of Venous Thrombosis, S. G. & O., 71:307, 1940.

36. Graves, W. N.: Pulmonary Embolism, A Statistical Review of Cases from 1929 through 1938, S. G. & O., 70:958-63 (May), 1940.

37. Gould, E. P., and Patey, D. H.: Primary Thrombosis of the Axillary Vein, Brit. J. Surg., 16:208-13, 1928.

38. Hampton, A. O., and Castleman, B.: Correlation of Post Mortem Chest Teleroentgenograms with Autopsy Findings, Am. J. Roentgenol., 43:305, 1940.

39. Heard, J. E.: Papers, Mayo Clinic and Mayo Staff, 2:419, 1923.

40. Henderson, E. F.: Fatal Pulmonary Embolism; a Statistical Review, Arch. Surg., 15:231, 1927.

41. Homans, J.: Circulatory Diseases of the Extermity, N. Y., 1939, The MacMillan Co.

42. Homans, J.: Deep Quiet Venous Thrombosis in the Lower Limb, Preferred Levels for Interruption of Veins; Iliac Section or Ligation, S. G. & O., 79:70-82 (July), 1944.

43. Homans, J.: Diseases of the Veins, Venous Thrombosis and Pulmonary Embolism, N. Eng. J. Med., 231:51-60 (July), 1944.

44. Homans, J.: Pulmonary Embolism Due to Quiet Venous Thrombosis and Simulating Cardiac and Pulmonary Disease, New Eng. J. Med., 229:309, 1943.

45. Homans, J., and Zollinger, R.: Experimental Thrombophlebitis, Arch. Surg., 18:992, 1929.

46. Hunter, W. C., Krygier, J. J., Kennedy, J. C., and Sneeden, V. D.: Etiology and Prevention of Thrombosis of the Deep Leg Veins, Surgery, 17:178-90 (Feb.), 1945.

47. Hunter, W. C., Sneeden, V. D., Robertson, T. D., Snyder, G. A. C.: Thrombosis of the Deep Veins of the Legs; Its Clinical Significance as Exemplified in 351 Autopsies, Arch. Int. Med., 68:1-17, 1941.

48. Kaplan, T.: Thrombosis of the Axillary Vein, Surgery, 12:184-91 (Aug.), 1942.

49. Karsner, H. T.: Human Pathology, Philadelphia, 1926, J. B. Lippincott Co.

50. Koester: Inaugural Dissertations, Bonn, 1870, Cited by Ochsner (67).

51. Kulenkampf, D.: Die Verhutung schwerer oder todlicher Embolien durch Ausraumung der V., iliaca., Zentralbl. f. chir., 62:1258, 1938.

52. Lange, E.: Beitrag zur operativen, Behandlung der blanden Venenthrombose, Zentralbl., f. chir., 65:2422, 1938.

53. Lawen, A.: Arteriospasmus bei akuter masswer Thrombose der V. Femoralis, Zentralbl. f. chir., 65:2422, 1938. Quoted by Ochsner (67).

54. Leriche, R., and Kunlin, J.: Presse Med., 42:1481, 1934.

55. Lesser, A., and Danelius, G.: Venography; Its Value in the Diagnosis and Management of Venous Disturbances of the Lower Exrtemities, Ann. Surg., 119:903 (June), 1944.

56. Lowenstein, P. S.: Thrombosis of the Axillary Vein: An Anatomic Study, J.A.M.A., 82:854-7, 1924.

57. Luckhardt, A. B., Alpert, R., and Smith, S.: Hemodynamic and Respiratory Changes Following Manipulation and Traction of the Gastrohepatic Ligament, Science, 76:545, 1932.

58. Mahler: Cited by Kulenkampf, D.: Die Verhutung schwerer oder todlecher Embolien durch ausraitmung der V. iliaca, Zentralbl. F. chir., 62:1258, 1938.

59. Mahorner, H.: Method for Obtaining Venograms of the Veins of the Extremities, S. G. & O., 76:41-2 (Feb.), 1943.

60. Martland, H. S.: S. Clin., N. America, 21:383, 1941.

61. McCartney, J. S.: Postoperative Pulmonary Embolism, Surgery, 17:178-90 (Feb.), 1945.

62. McGinn, S., and White, P. D.: Acute Cor Pulmonale Resulting from Pulmonary Embolism, J.A.M.A., 104:1473-80, 1935.

63. Meade, W. H., and Ochsner, A.: Spool Cotton as Suture Material, J.A.M.A., 113:2230, 1939.

64. Murnaghan, D., McGinn, S., and White, P. D.: Pulmonary Embolism With and Without Acute Cor Pulmonale, With Especial Reference to Electrocardiogram, Am. Heart J., 25:573-97, 1943.

65. Murray, G.: Heparin in Thrombosis and Blood Vessel Surgery, S. G. & O., 72:340-4, 1940.

66. Neumann, R.: Centers of Origin and Focus of Development of Thrombosis of the Leg, Arch. F. Path. Anat., 301:708, 1938.

67. Ochsner, A.: Intravenous Clotting, Surg., 17:240-59 (Feb.), 1945.

68. Ochsner, A., and DeBakey, M.: Rational Therapy of Vascular Thrombosis, New Orleans Medical and Surgical Journal, 94:173-8 (Oct.), 1941.

69. Idem: The Rôle of Vasospasm in Thrombophlebitis and Its Treatment of Novocain Block of the Sympathetics, Tri-State M. J., 13:2654, 1941.

70. Ochsner, A., and DeBakey, M.: Therapeutic Consideration of Thrombophlebitis and Phlebothrombosis, New England J. Med., 225:207, 1941.

71. Idem: Therapy of Phlebothrombosis and Thrombophlebitis, Arch. Surg., 40:268, 1940.

72. Ochsner, A., and DeBakey, M.: Thrombophlebitis and Phlebothrombosis, Southern Surgeon, 8:269, 1939.

73. Idem: Thrombophlebitis, the Rôle of Vasospasm in the Production of the Clinical Manifestations, J.A.M.A., 113:117, 1940.

74. Ochsner, A., and DeBakey, M.: Treatment of Thrombophlebitis by Novocain Block & Sympathetics, Surgery, 5:491 (April), 1939.

75. Ochsner, A., DeBakey, M., and Schroeder, G.: The Significance of Phlebography in Thrombophlebitis and Phlebothrombosis, J.A.M.A., 123:738, 1943.

76. Olow, J.: Acta Obst. et Gynec. Scandinav., 10:159, 1930. Cited by McCartney.

77. Ophuls, W., and Dobson, L., Cited by Rosenthal, S. R.: Thrombosis and Fatal Pulmonary Embolism, Arch. Path., 14:215, 1932.

78. Parsons, R. J., and McMaster, P. D.: The Effect of Pulse Upon the Formation and Flow of Lymph., J. Exper. Med., 68:353 (Sept.), 1938. McMaster, P. D., and Parsons, R. J.: The Effect of the Pulse on the Spread of Substances Through Tissues, Ibid, 68:377 (Sept.), 1937.

79. Pendergrass, E. P., Chamberlain, G. W., Godfrey, E. W., and Burdick, E. D.: A Survey of Deaths and Unfavorable Sequelae Following the Administration of Contrast Media, Am. J. Roentgen and Radium Therapy, 48:741 (Dec.), 1942.

80. Pilcher, R. S.: Slowly Fatal Pulmonary Embolism, Lancet, 2:942, 1938.

81. Potts, W. J., and Smith, S.: Pulmonary Embolism: An Experimental Study of Variations in the Volume Blood Flow in the Inferior Vena Cava of the Dog, Arch. Surg., 42:661-4, 1941.

82. Putnoky, J., and Farkas, K.: Vergleichende Pathologisch Histologische Utersuchung Des Herzmuskels Bei 1009 Obduktionen, Uter Besonderes Beachtung Der Falle Von Thrombosen Und Embolien. Virchows Arch. F. Path. Anat., 287:400, 1932. Cited by Ochsner (67).

83. Putzer, Rita: Die Wadenvenen Thrombose in Ihrer Beziehung Zur Architektur Der Wade, Arch. F. Gynak, 169:444-52, 1939.

84. Robertson, H.: A Clinical Study of Pulmonary Embolism, Am. J. Surg., 41:3-21, 1938.

85. Roessle, R.: On the Significance and Origin of Venous Thrombosis of the Lower Legs, Arch. F. Path. Anat., 300:180, 1937.

86. Sgalitzer, M., and Kollert, V.: Kontrast Austellung Der Venen Im Roentgen Bilde, Klin Wchnschr., 10:1659, 1931.

87. Simpson, K.: Shelter Deaths from Pulmonary Ebolism, Lancet, 2:744, 1940.

88. Smith, L. A., and Allen, E. V.: Vascular Clinics, XIV, Studies on the Rate of Venous Blood Flow; Physiologic Studies and Relation to Postoperative Venous Thrombosis and Pulmonary Embolism, Proc. Staff Meetings, Mayo Clinic, 16:53-7, 1941.

89. Sproul, E. E.: Carcinoma and Venous Thrombosis, The Frequency of Association of Carcinoma in the Body or Tail of the Pancreas with Multiple Venous Thrombosis, Am. J. Cancer, 34:506, 1938.

90. Stick: Annual Session of the German Surgical Society, J.A.M.A., 105:525, 1935.

91. Veal, J. R.: Thrombosis of the Axillary and Subclavian Veins, Am. J. M. Sc., 200:27-9, 1940.

92. Veal, J. K.: J.A.M.A., 121:240, 1943.

93. Veal, J R., and Hussey, H. H.: Surgeey of Deep Venous Thrombosis of the Lower Extremity, Surg., 17:218-31 (Feb.), 1945.

94. Veal, J. R., and McFetridge, E. M.: Primary Thrombosis of the Axillary Vein, Arch. Surg., 31:271-89, 1935.

95. Virchow, R.: Beitr. Z. Exper. Path. U. Phys. H., 2:1, 1846. Cited by McCartney.

96. Von Schrotter: In Nothnagel Handbuck Der Pathologie and Therapie, Vienna, 1901, Alfred Holder, 15-13:533. Cited by Kaplan (48).

97. Welch, C. E., and Faxon, H. H.: Thrombophlebitis and Pulmonary Embolism, J.A.M.A., 117:1502-8, 1941.

98. Wilson, L. B.: Ann. Surg., 56:809, 1912.

99. Zava, L.: Sui Vantaggi Del Levar Precoce Digli Operate. Poleclinico (sez. prat.), 47:865-72, 1940. Cited by Ochsner (67).

100. Zink, Cited by Aschoff, L.: Ueber Thrombose and Embolie, Wien. Klin., Wchnschr., 51:1277, 1938.

X-RAY EXAMINATION OF THE CHEST IN A COUNTY HOSPITAL*

ROUTINE EXAMINATIONS IN A COUNTY HOSPITAL IN CALIFORNIA

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NO one questions today the importance of the routine x-ray filming of the supposedly healthy chest. In the diagnosis of pulmonary tuberculosis and in other unsuspected non-tuberculous[1] lesions of the chest the film is supreme. What seems amazing now is that existing facilities have not been utilized these past twenty years since x-ray has been recognized as the only diagnostic technique worthy of the name in evaluating pulmonary lesions. Year after year the x-ray facilities of hospitals, private and tax-supported, stood idly by while the anti-tuberculosis campaign ground on slowly, emphasizing other means of approach for the most part. In a recent communication the president of the California State Tuberculosis Association, Dr. Howard W. Bosworth[2] of Los Angeles said in part, "The Public Health people had the right idea—every one must be x-rayed."

Enough time has elapsed to have many evaluations of the tremendous effort by the Selective Service System and the Tuberculosis Control section of the United States Public Health Service. In recent months every journal adds additional information. Millions of films have been taken and the most valuable feature of the effort has been the sharing of the knowledge gained from the films; this information has been returned to the Public Health Department of the home county from which the selectee had come, in case of his rejection. A huge central file pooling this information should be established for use by local Public Health Departments.

WHY HOSPITALS SHOULD MAKE ROUTINE X-RAY CHEST EXAMINATIONS

There are many reasons why every hospital[3] should routinely x-ray every admission to its wards. Some of the benefits accrue directly to the hospital that protects its nursing staff[4] from contact with undiagnosed open cases of tuberculosis which in some hospitals comprise from one to five per cent of all entries. Compared with other contagious diseases, the presence of undiagnosed tuberculosis in patients hospitalized for reasons other than tuberculosis, seems hardly pardonable. One does not need to imply that all of a patient's disabilities "from the cradle to the grave" should be diagnosed at the time of one hospital admission. But it does seem reasonable to ask if a most highly infectious, communicable disease should not be diagnosed in an institution where facilities exist for x-raying at nominal cost. To protect the nurses in attendance and the unsuspecting public from which he or she came, as well as to diagnose a lesion early rather than late, seems wise and economical. Most hospitals

* From the San Luis Obispo Hospital and the Office of the County Physician, San Luis Obispo County.

have routine films on their nurses to protect the patients from pulmonary tuberculosis. Is it fair to ask less in return from the newly hospitalized patient?

Compared with routine blood counts, blood Wassermanns, and urinalyses, for the diagnosis of blood dyscrasias, syphilis, and renal pathology, a single routine P.A. film of the chest has been proven to yield a much higher percentage of evidence of pathology many times over. Then, why not a routine x-ray film in all hospitals?

Each year of sanatorium care per patient at a minimum cost of $1,500.00 per annum, if saved by this method, should buy many films or pay overhead, even if 14x17 films were used as in cases here presented. The San Luis Obispo Tuberculosis Association contributed $1.00 per single chest film, the San Luis Obispo County Hospital budget absorbed the balance of the expense.

STUDIES AT SAN LUIS OBISPO COUNTY HOSPITAL

The following survey attempts to show how a County Hospital can be utilized in tuberculosis case finding. Three different groups are described and the results of x-ray examinations compared.

The first group comprises 409 patients who were treated at the General Hospital during the experimental two-year period. A chest film (14x17) was taken routinely on every patient admitted for the first time as in- or out-patient.

The second group comprises all patients who were seen in the Chest Clinic during the same period. The Clinic was conducted by Dr. Arthur Bruce Steele in collaboration with the Staff of the Health Department. A total of 342 patients were seen.

The third group comprises 2,561 persons who volunteered for chest x-rays (4x5) taken by a mobile unit supplied by the California State Tuberculosis Association. The mobile unit remained in this county for one week during May, 1944, and was stationed in a different community each day.

Thus, the first group shows the incidence of tuberculosis in patients who came to the hospital due to some sickness, usually not connected with their chest; in this group only patients eligible for county service, roughly the lowest socio-economic third, were seen. The second group shows the incidence of tuberculosis in patients who are either known contacts of tuberculous individuals, or who themselves showed symptoms suspicious of chest pathology. The third group, comprising volunteers for the mobile x-ray unit, responded to publicity soliciting coöperation in a mass x-ray survey, appealing to their good citizenship and foresight.

It could be anticipated that the greatest number of cases of active tuberculosis would be found among the chest clinic clientele, somewhat fewer among the county hospital patients, and the smallest number among the "healthy" general population. (See Chart 1.) The following figures are a graphic confirmation of this supposition:

RESULTS

(1) Cases showing no evidence of past exposure to tuberculosis:

This group is represented by only 24 per cent of chest clinic patients, 26 per cent of county patients, and 48 per cent of mobile unit volunteers. In the chest clinic sample only 29 per cent of children under 10 years showed no signs of past exposure to tuberculosis, compared to 54 per cent in the same age group among county patients and 79 per cent of the mobile unit; the ratio of unexposed cases within each decade for each of our three groups is illustrated in Chart 2.

(2) Cases showing evidence of exposure to tuberculosis:

(a) Cases showing evidence of healed primary complex: Chest Clinic 47 per cent, county patients 59 per cent, mobile unit 49 per cent; again taking children up to the age of 10 years as indicators, we find that already 43 per cent of the children in the chest clinic showed healed primary complex, while only 36 per cent of county patients, and 20 per cent of mobile unit children have been so exposed by the time they reach their 10th year.

(b) Active primary complex was found in 4 per cent of chest clinic patients, 1 per cent of county patients, and none among mobile unit volunteers. Practically all these occurred in children under 10, constituting 25 per cent of

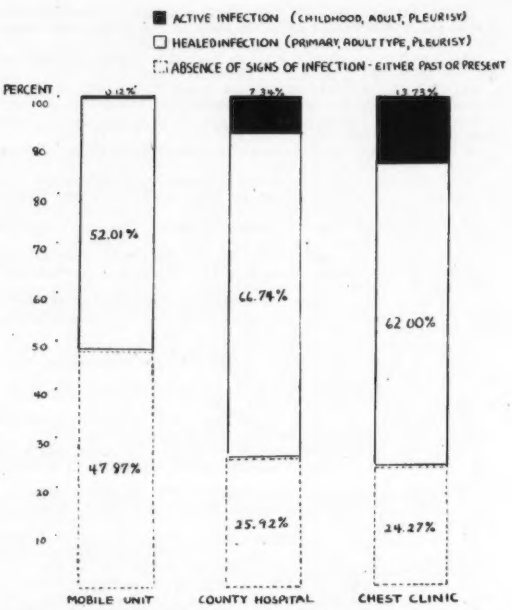

Chart 1.—Comparison of uninfected, healed infected, and active case incidence in three groups.

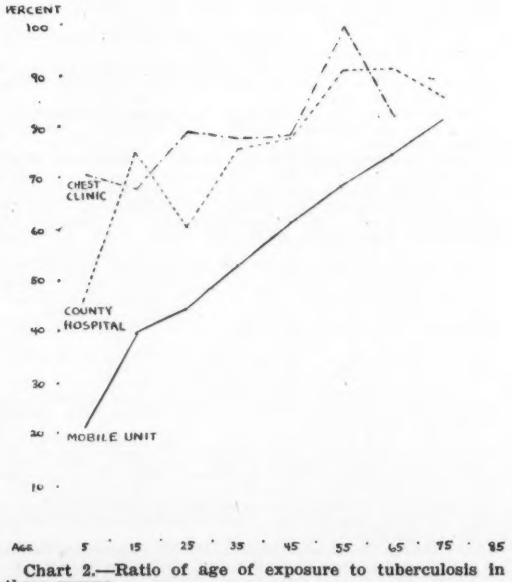

Chart 2.—Ratio of age of exposure to tuberculosis in three groups.

children examined in the chest clinic and 10 per cent of children among county patients.

(c) Healed re-infection type tuberculosis was found in 13 per cent of chest clinic patients, 5 per cent of county patients, and 3 per cent of mobile unit volunteers.

(d) Active re-infection tuberculosis was found in 8 per cent of chest clinic patients, 5 per cent of county patients, and 0.12 per cent of mobile unit volunteers. The overall rate by age is given in Chart 3.

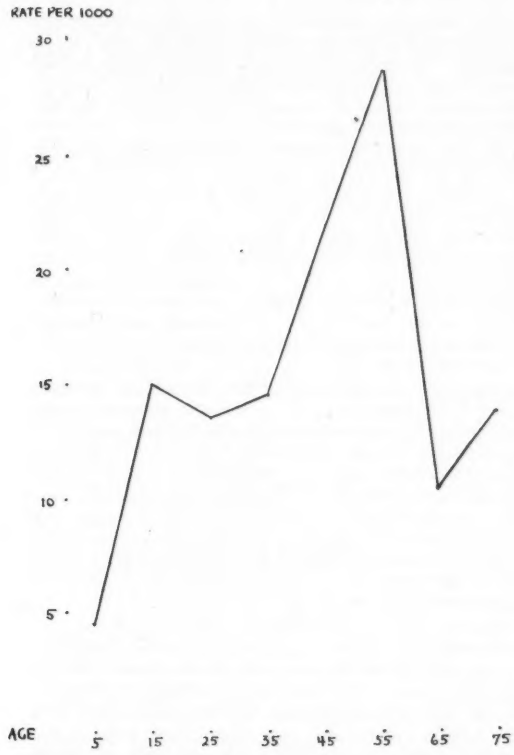

Chart 3.—Overall rate of active tuberculosis according to age.

An additional number of 468 chest films were taken during the experimental period; the group covered comprise all teachers of the county school system, all employees of the General Hospital and Tuberculosis Sanatorium, women attending the Pre-Natal Clinic, and some NYA workers. These groups in addition to the experimental groups discussed previously comprise a total of 3,780 cases. From this total 53 cases of active pulmonary tuberculosis were found. Of these 21 were derived from routine hospital admissions.

Example.—Inclusion of a chest film in every routine examination at a general hospital seems to be worthwhile *only* if this is done in every case regardless of history or clinical status. A man who had been previously hospitalized in various Los Angeles hospitals for a number of non-pulmonary complaints was brought to the San Luis Obispo General Hospital by the police who had picked him up for inebriety and asked that he be kept in custodial care over-night. A routine x-ray film of his chest revealed far-advanced active pulmonary tuberculosis.

SUMMARY

(1) Routine 14x17 x-ray films of the chest were taken at a county hospital in California for a two-year period on all admissions including dispensary from June, 1942, to June, 1944.

(2) The costs were defrayed by the County of San Luis Obispo Tuberculosis Association and the tax-supported county hospital.

(3) The results fully justify the money spent in that many hitherto undiagnosed tuberculosis cases were found, 21 cases from 409 chest films. In addition much non-tuberculosis chest pathology was discovered. (Not reported.) The program will continue until the procedure fails to be economical, i.e., until the cost per discovered case is too high.

(4) In the material surveyed the incidence of pulmonary tuberculosis would appear to be highest among contacts with known cases of open tuberculosis; secondly, among people seeking hospitalization for other reasons, and thirdly the general population.

(5) It would appear that standard films in hospitals on all entering patients is not only good medical practice but good public health.

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REFERENCES

1. Gould, D. M.: J.A.M.A., Vol. 127, No. 13.
2. Newsletter, California Tuberculosis Association, June-July, 1945.
3. Block, R. G.: American Review of Tuberculosis, Vol. 50, No. 5.
4. Barnwell, J. R.: California and Western Medicine, Vol. 59, No. 1.

CLINICAL NOTES AND CASE REPORTS

SJORGREN'S SYNDROME-TREATED WITH STILBESTEROL

REPORT OF CASE

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AND
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SJORGEN'S syndrome is a clinical entity characterized by dryness of the mouth, nasal passages, upper respiratory tract, genital tract, dryness and irritation of the eyes, and arthritis. The eyes present lesions which are included under the heading of keratitis sicca. The disease occurs almost exclusively in women, usually at the time of menopause, and is often aggravated during menstrual disorders. The etiologic basis is presumed to be a deficiency of the female hormones, and this presumption is sustained by a number of cases which have been reported, and successfully treated with the female hormones.

Keratitis sicca, as the name implies, is associated with deficient tear formation, a phenomenon which can be readily ascertained by inserting a narrow strip of filter paper into the lower conjunctival fornix and noting the extent to which the paper has been wetted in a given length of time (Schirmer's test). The cornea usually presents punctate erosions of the epithelium; these stain best with rose Bengal. The bulbar conjunctiva characteristically takes the stain in the form of a rose-colored triangle on either side of the cornea. The corneal epithelium may desquamate in shreds (keratitis filamentosa). These patients are usually first seen by the ophthalmologist because of the ocular distress.

Report of Case

Case 1.—Mrs. E. J., age 42, was seen in the eye clinic on December 6, 1944, complaining of burning and pain in

both eyes, particularly the left. The lids felt hot and dry. There was no tearing, no photophobia, and no secretion. These symptoms had existed for three years, with occasional brief remissions. Just prior to the menstrual periods the complaints were intensified. The nose and throat were dry, and the voice was often hoarse. She had noted white patches on the mucous membranes of both cheeks ten years previously; they were attributed to the prolonged use of antiseptic lozenges. Similar lesions had arisen on the left side of the tongue eighteen months ago. The tongue at times was painful. There were patches of psoriasis on the body. The left thumb had been swollen and painful during the previous winter. The menses had always been painful, and excessive in amount, but had been otherwise quite normal. However, the current menstrual period was already delayed and was subsequently missed. The classical picture of keratitis sicca was evident. The pateint had been under the care of ophthalmologists since the onset of symptoms, but had failed to respond to the usual prescriptions of salves, eye drops, and vitamins.

The gynecologist (H. G.) reported the following findings: Vulva hypoplastic. Vaginal vulvar and cervical mucous membranes are pale and thin. Corpus uteri studded with nodular subserous fibro-myomata. The skin of both thighs was marked with numerous striations resulting from ruptured elastic fibers.

Laboratory data were essentially negative, and included Kahn tests, blood counts, and dental examinations. There was no obvious explanation for the leukoplakia; the patient herself thought they had followed the prolonged use of "sucrets" some ten years previously. Histologic examination of a biopsy specimen revealed findings characteristic of leukoplakia. Cultures taken from the conjunctival fornices proved to be sterile.

Treatment was begun with high dosages of Vitamin "B" administered by mouth, and later intravenously. No improvement resulted in the objective ocular findings or in the oral lesions. The dryness of the eyes, the transient blurring of vision from epithelial changes, and the annoying dryness of the mouth persisted unabated. During one exacerbation, the vision of the right eye was reduced from 20/20 to 16/20, while that of the left eye fell to 10/20. At this time, long shreds of desquamated epithelium hung from both corneal surfaces. An uncomfortable dryness of the vaginal tract was experienced.

The patient was referred again to the gynecologist for more specific gynecologic treatment. He prescribed stilbesterol in daily doses of 1 mgm. After the fourth day, the patient noted marked symptomatic relief. Stilbesterol was continued in the same dosage for one month. A definite improvement was noted in the appearance of the leukoplakia. It was felt inadvisable to increase the dosage at this time on account of the uterine fibroids. On February 20, 1945, a sub-total hysterectomy was performed. At operation both ovaries were found cystic and scarred to an extreme degree; the right one being almost completely atrophic. Stilbesterol was continued during convalescence, and the patient remained symptom free, but she failed to take stilbesterol while at home, with the result that the ocular discomfort returned and the oral lesions again grew larger.

On resumption of stilbesterol, in increased dosage of 3 mgm. daily, combined with 100 mgm. cevitamic acid, the oral lesions disappeared within two months. The patient's maintenance dosage of stilbesterol is apparently 3 mgm. per day, for if she takes less than this amount her ocular discomfort returns and the corneal lesions reappear. As long as the dosage is maintained she feels comfortable and there are only occasional corneal lesions visible. The administration of stilbesterol in this case can be considered only as affording palliative relief, without permanent cure, just as insulin cannot be expected to cure diabetes but is effective as long as it is used.

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The Social Aspects of Medicine

The following by Edwards A. Park, M.D., is from an article in the official journal of the American Academy of Pediatrics. Dr. Park is pediatrician at the Johns Hopkins Hospital, Baltimore.

Quotation follows::

All thoughtful people are conscious that great changes in the organization of society the world over are in progress. These had been developing obviously enough prior to the outbreak of this present war, but the war with its loosening and stirring up processes has undoubtedly intensified their progress.

We are in the beginning of a great social upheaval. No one can foresee just what changes will result, but it is possible to speak in generalities. A movement throughout the world toward the left, which has as its ostensible object the improvement in the condition of the average man and his family, is in process. More consideration is going to be given and better provision made for economic welfare, housing, comfort, recreation and, in particular, for the maintenance of health and for safeguarding against helplessness during the periods of joblessness, illness and old age.

The power of the individual to acquire great wealth is going to be diminished, and institutions such as our private hospitals, endowed medical schools, and universities dependent on private philanthropy will have to look for support to other sources, very probably to the state. There is undoubtedly going to be increased power vested in the state; in other words, in spite of every desire to maintain individualism and power of initiative, more centralized control is going to be forced upon us, for the reason that such is the simple, direct way for the people to get these things which they so fervently desire.

Medical care is so insinuated into the structure of society that inevitably it will be caught in the general upheaval and will share in the changes in general. No one can foresee just what the changes in medical care will be, but it is safe to say that, whether we like it or not, they will be considerable, that they will be initiated and dictated largely by the lay public, that the preventive aspects of medicine will have a much more important place than at the present time, and that medical care will be extensively reorganized and increasingly regulated and controlled by centralized authority.

First Things First

Existing plans for socialized medicine contemplate government-sponsored medical care for every minor ache and pain. A criticism of all-inclusive compulsory health insurance is well stated by a medical authority writing in the *Saturday Evening Post:*

"Insurance is essentially for calamities; in every field, it is provision for the small losses that is difficult. Yet it is the cost of serious illness that worries the patients. It is the usual experience of physicians that anyone with a regular job takes the cost of brief sicknesses in his stride. Medical costs of a hospitalized patient should be easy to insure; the costs of certain infirmities requiring long treatment at home could be spread through insurance payments. If we want protection from serious disaster, why impair protection by throwing in trivialities?"

Here is another reason why it will pay to go slow in adopting all-out socialized medicine for the sake of securing benefits that in the end may prove illusory or not even wanted. A mistake would be tragically costly.

CALIFORNIA MEDICAL ASSOCIATION

This department contains official notices, reports of county society proceedings and other information having to do with the State Association and its component county societies. The copy for the department is submitted by the State Association Secretary, to whom communications for this department should be sent. Rosters of State Association officers and committees and of component county societies and affiliated organizations, are printed in the front advertising section on pages 2, 4 and 6.

CALIFORNIA MEDICAL ASSOCIATION†

PHILIP K. GILMAN, M.D.....President
SAM J. McCLENDON, M.D.....President-Elect
E. VINCENT ASKEY, M.D.....Speaker
LEWIS A. ALESEN, M.D.....Vice-Speaker
PHILIP K. GILMAN, M.D.....Council Chairman
JOHN W. CLINE, M.D...Chairman, Executive Committee
GEORGE H. KRESS, M.D..Secretary-Treasurer and Editor
JOHN HUNTON .....Executive Secretary

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Plastic Surgery:
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George W. Pierce, San Francisco

Neuropsychiatry:
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Frank Hinman, San Francisco
Albert J. Scholl, Los Angeles

Pharmacology:
W. C. Cutting, Menlo Park
Clinton H. Thienes, Los Angeles

† For complete roster of officers, see advertising pages 2, 4, and 6.

OFFICIAL NOTICES

EXECUTIVE COMMITTEE OF THE CALIFORNIA MEDICAL ASSOCIATION

Minutes of the One Hundred Ninety-sixth (196th) Meeting of the Executive Committee of the California Medical Association

The meeting was called to order at 11:00 A.M., on Friday, November 16, 1945, in the Association Headquarters offices in San Francisco.

1. **Roll Call:**

Members Present: John W. Cline, Chairman; Philip K. Gilman, E. Vincent Askey, and George H. Kress, Secretary.

Member Absent: Sam J. McClendon.

2. **Referee Appointed for Solano County Medical Society Hearing:**

The Solano County Medical Society having notified the C.M.A. that it was presenting charges against one of its members, for hearing on December 17, 1945, at 8:15 P.M., in Vallejo, request was made that the C.M.A. appoint a Referee, as per C.M.A. by-law provision, under Chapter II, Section 3, subsection (6). The Executive Committee voted that H. Gordon MacLean of Oakland, act as Referee. (Note. No hearing held. Member resigned prior to hearing.)

3. **Retired Membership:**

On motion made and seconded, Retired Membership was granted the following members, whose applications had been received in accredited form from their county societies:

John P. Nuttall, Los Angeles County,
J. Morris Slemons, Los Angeles County,
Louis George Visscher, Los Angeles County.

4. **1946 Annual Dues:**

A letter of November 9, 1945, from the "Association of Physician and Dentist Health Supervisors of Los Angeles City Schools," relative to dues, was considered. It was suggested that President Gilman reply, calling attention to the provision in the C.M.A. Constitution and By-laws regarding Associate Membership. (C.M.A. Constitution Article IV, Section 1(b). Applications for Associate Membership to be submitted to the C.M.A. Council through respective component county units.

5. **Adjournment:**

There being no further business, the meeting adjourned.

JOHN W. CLINE, M.D., *Chairman.*
GEORGE H. KRESS, M.D., *Secretary.*

75TH ANNUAL SESSION

California Medical Association

AT LOS ANGELES

Tuesday, May 7 - Friday, May 10, 1946

Make note of these dates on your Calendar.

* Reports referred to in minutes are on file in the headquarters office of the Association. Minutes as here printed have been abstracted.

COUNTY SOCIETIES†

CHANGES IN MEMBERSHIP

New Members (13)

Sacramento County (2)

Akamatsu, George F., *Sacramento*
Muramoto, Jiro, *Sacramento*

San Francisco County (9)

Bab, Werner, *San Francisco*
Burton, James William, *San Francisco*
Butler, Patrick George, *San Francisco*
Dufficy, Rafael Gabriel, Jr., *San Francisco*
Franklin, Earl Alexander, *San Francisco*
Lippman, Caro W., *San Francisco*
Merritt, John F., *San Francisco*
Minassian, Edward William, *San Francisco*
Schulte, John Walter, *San Francisco*

Santa Cruz County (1)

Raffety, John Orie, *Santa Cruz*

Ventura County (1)

Mangan, Hilary R., *Ventura*

Members Resigned (1)

McNaught, James B., *San Francisco County*

In Memoriam

Black, Benjamin Warren. Died at Berkeley, December 1, 1945, age 58. Graduate of the Medico-Chirurgical College of Philadelphia, Pennsylvania, 1916. Licensed in California in 1928. Doctor Black was a member of the Alameda County Medical Association, the California Medical Association, and a Fellow of the American Medical Association.

✤

Johnson, Joseph Warren. Died at Pasadena, November 12, 1945, age 35. Graduate of the University of Arkansas School of Medicine, Little Rock, 1938. Licensed in California in 1940. Doctor Johnson was a member of the Los Angeles County Medical Association, the California Medical Association, and a Fellow of the American Medical Association.

✤

Mack, Alonzo E. Died at Glendale, November 20, 1945, age 76. Graduate of Creighton University School of Medicine, Omaha, Nebraska, 1896. Licensed in California in 1915. Doctor Mack was a member of the Los Angeles County Medical Association, the California Medical Association, and a Fellow of the American Medical Association.

✤

McQuade, John. Died at San Francisco, November 17, 1945, age 68. Graduate of the College of Physicians and Surgeons of San Francisco, 1918. Licensed in California in 1918. Doctor McQuade was a member of the San Francisco County Medical Society, the California Medical Association, and a Fellow of the American Medical Association.

Shuck, Carl Henry. Died at Fresno, November 11, 1945, age 46. Graduate of Northwestern University Medical School, Chicago, Illinois, 1928. Licensed in California in 1928. Doctor Shuck was a member of the Fresno County Medical Society, the California Medical Association, and a Fellow of the American Medical Association.

✤

Weston, Frederick William. Died at Tustin, December 1, 1945, age 61. Graduate of the University of Toronto Faculty of Medicine, Ontario, 1913. Licensed in California in 1929. Doctor Weston was a member of the Orange County Medical Society, the California Medical Association, and a Fellow of the American Medical Association.

✤

Wilbor, Leon Mitchell. Died at Cathedral City, December 5, 1945, age 57. Graduate of the University of Buffalo School of Medicine, New York, 1911. Licensed in California in 1929. Doctor Wilbor was a member of the Riverside County Medical Society, the California Medical Association, and a Fellow of the American Medical Association.

✤

Wissner, Leonard Otto. (Major, Army of the United States.) Died somewhere in India, November 17, 1945. Graduate of the College of Medical Evangelists, Loma Linda-Los Angeles, 1931. Licensed in California in 1932. Doctor Wissner was a member of the Stanislaus County Medical Society, the California Medical Association, and a Fellow of the American Medical Association.

OBITUARY

Benjamin Warren Black, M.D.
1887—1945

We are a group who can speak of death quietly, honestly and without fear, but we cannot speak of the death of Benjamin Warren Black, M.D. without a feeling of irreparable loss.

Dr. Black was born in Fillmore, Utah, May 21, 1887. He received the Degree of Doctor of Medicine from the University of Pennsylvania in 1916, completed his internship, and then promptly entered the United States Army. At the termination of World War I he devoted four years to the United States Public Health Service and then accepted an appointment as executive officer in the U. S. Veterans Bureau. In the course of four busy years, he rose to the position of Medical Director of that organization. In 1928 he accepted the post of Medical Director of Alameda County, a position which he filled ably and well until his death on December 1, 1945.

Dr. Black was a born administrator, a gifted leader, a fluent speaker and facile writer. He administered the affairs of an important medical organization and developed an "Alameda County Plan" which has gained national recognition and esteem. His devotion to the cause of the sick and the poor placed him high in the ranks of communal service. His gifts to his associates and his audiences were given freely and without condescension.

Dr. Black was a member of the Alameda County Medical Association, the California State Medical Association, the American Medical Association, the American Association for Advancement of Science, the Association of Military Surgeons, the American College of Physicians and the American Psychiatric Association. He was a charter member and Past Vice-President of the American College of Hospital Administrators, and a trustee and Past President of the American Hospital Association.

† For roster of officers of component county medical societies, see page 4 in front advertising section.

His community interests were expressed by his activities in various Masonic bodies, including Scottish Rite and Shrine, Kiwanis International, the Oakland Forum, the Community Chest and the War Manpower Commission.

Dr. Black's final illness found him cheerful and creative to the end. He continued to plan for better treatment of the patients and improvement of the institutions entrusted to his care. May the memory of his philanthropy and the fulfillment of his plans be a continued inspiration to us all.

CALIFORNIA COMMITTEE ON PARTICIPATION OF THE MEDICAL PROFESSION IN THE WAR EFFORT

15,000 Physicians, 5,000 Dentists Made Eligible For Discharge

In line with its policy of returning doctors and dentists to civilian life as rapidly as the Army's medical needs decline, the War Department has made an additional group of 15,000 physicians and 5,000 dentists eligible for discharge.

Since V-E Day, more than 15,000 physicians have been released from the Army. Under the original schedule, 13,000 were to have been returned to private practice by January 1. The 15,000 already released represent nearly one-third of the total number in the Army at the time of the German surrender. With the additional group made eligible by this recent announcement, two-thirds of the physicians in the Army as of V-E Day will be eligible to resume civilian practice.

To effect the additional discharges, the critical score for physicians and dentists has been reduced from 80 to 70, effective on December 15. The score of 70 for medical personnel is 3 points below the December 1 score for officers in other branches of the Army, and is designed to insure the speediest possible release of men needed in their home communities to provide medical care to the civilian population.

The time factor for physicians and dentists has also been cut. Instead of service prior to Pearl Harbor, medical personnel will now be eligible for release if they have had 42 months of honorable service. This compares with a requirement of four years and three months service for officers outside the Medical Department. In addition, any physician or dentist who is 48 years of age to his nearest birthday is eligible to return to civilian life.

The new standards will apply to all Medical Corps officers except for those in certain scarce categories. For plastic surgeons; eye, and nose specialists; orthopedic surgeons and internal medicine specialists, the discharge requirement will be 80 points or continuous service since Pearl Harbor. A requirement of 70 points or 45 months service has been established for gastroenterologists; cardiologists, urologists, dermatologists, anesthetists, psychiatrists, general surgeons, physical therapy officers, radiologists and pathologists.

The number of doctors in these categories is relatively small but they are essential to the effective care of the 115,000 sick and wounded patients returned from overseas who are now in Army General Hospitals in this country. In the case of all Medical Department officers, provision is made for their retention on duty for a period of not more than 90 days if their services are essential and no replacement is available.

Secretary Patterson has directed that transportation priority be given to medical personnel eligible for return from Europe and the Pacific in order that there may be no delay in their arrival in this country. He has also designated two officers to go to Europe as his personal representatives to make an exhaustive investigation of the release of medical officers there. A similar investigation was recently completed in the Pacific area.

Service Discharges

Army Points Are Cut to 50 and Navy Falls to 36

The Army and Navy, on December 19, announced further reductions in discharge requirements, which will make 837,000 more persons eligible for release. . . .

The age criteria for all army medical and dental officers, except plastic surgeons, will be reduced from 48 to 45 years..

The army said it would continue to discharge personnel in this country who are no longer needed and who do not qualify for overseas duty, even though they lack sufficient points or service.

For dental and veterinary corps officers and all medical officers except certain specialists, the army critical score will be reduced from 70 to 65 points. The factors for release of sanitary corps officers, nurses, physiotherapists, and dietitians remain unchanged.

Veterans' Medical Changes Passed

The Senate passed and sent to the White House, on December 20, a measure reorganizing the medical division of the Veterans' Administration.

It establishes the Office of Chief Medical Examiner with a salary of $12,800 yearly, a deputy at $11,500, eight assistants at $11,000 and a director of nursing service at $8,000.

U. C. Medical Faculty Commended By Navy

A certificate of commendation has been presented to Dean Francis S. Smyth and the faculty of the Medical School of the University of California by the Bureau of Medicine and Surgery of the United States Navy for coöperation in the training of physicians for the Naval Service.

Accompanying the certificate was a letter from Vice-Admiral Ross T. McIntire, Surgeon General of the Navy, in which he congratulates the members of the faculty for their outstanding contribution to the war effort and to medical education.

"It is realized," the letter continues, "the extreme difficulties and obstacles that had to be overcome in accelerating instruction and changing methods in teaching with a faculty depleted by demands of the Services. I feel that medical schools have given a most distinguished service which has had considerable effect on the war effort"

Nebraska Representative Miller Praises Work of Medical Services

The following statement, given by the Honorable A. L. Miller of Nebraska [Congressman Arthur Lewis Miller received his M. D. degree in 1918. Is an ex-president of the Nebraska State Medical Association], in the House of Representatives, is reprinted from the November 23, 1945 Congressional Record:

"Mr. Speaker, the record of the medical men and the medical service in this war is outstanding. It has never been equalled by any Army in any war. There were over 570,000 wounded in World War II, of whom 360,000 were returned to some type of duty. There were some 25,000 or approximately 4 per cent who died of wounds.

"In World War II, only six men in each 10,000 died of disease each year. This is a lower death rate in disease than that of civilians in the same age group here in the

United States; yet these men lived in every part of the world under adverse physical and sanitary conditions. In World War I, 165 in each 10,000 died each year of disease, and these men were serving only in the United States and in Europe; the death rate in the Union Army in the Civil War was 712 per 10,000.

"The death rate from pneumonia has been reduced from 24 per cent in World War I to six-tenths per cent in this war. The death rate for meningitis has been reduced to 4 per cent in this war as compared to 34 per cent in World War I.

"I am sure, Mr. Speaker, that the Congress and the country can look with considerable pride upon this fine record of the medical srevice. There is no record in civil life or elsewhere to compare with this, and certainly a good job has been done in preventative medicine, as well as in the treatment of disease."

Malaria Relapse Rate Declining

The hospital admission peak for malaria relapses in the United States was reached in February, 1945, with a total of approximately 6,000 cases, and has been steadily declining since that time, according to a recent announcement by the Army Medical Department.

During 1943, when men began to return from tropical theaters of operations in increasing numbers, the total number of hospital admissions for malaria relapse reached 5,275. By 1944 it had jumped to almost five times that number—28,150, and in the first six months of this year the total was 30,420.

It is believed, however, that the return of troops from malaria-ridden areas will not appreciably affect the downward trend of admissions, for a large proportion of original personnel already has been replaced and returned. Units and replacements sent to these Pacific-Asiatic regions after the middle of 1943 are not expected to show as high rates of infection as those of earlier groups.

Hospital Crisis

Army and Navy Recklessly Abandoning Costly Equipment Urgently Needed By Veterans

In view of the current shortage of hospital accommodations, it would be a good thing if the armed services and the Veterans' Administration could get together in regard to hospital requirements for discharged service men and women.

Right and left, the Army and Navy are closing excellently equipped and efficient wartime hospitals because those in uniform no longer are being wounded or stricken with disease in considerable numbers while in action.

Note the recent closing of Hammond General Hospital in Modesto, which, under Colonel L. R. Proust, won standing as one of the finest medical institutions in the Ninth Service Command by saving the lives and healing the bodies of more than 15,000 veterans during its three years of existence.

Yet, at the same time, the Veterans' Administration is encountering great difficulty in obtaining hospitalization for discharged veterans throughout the nation, and the situation is particularly acute in the bay area.

To provide for those requiring further care following discharge, the Veterans' Administration recently requisitioned some 20,000 beds in already overcrowded private hospitals, and an equal number in Army and Navy hospitals still operating.

This seems to be another instance of one governmental agency abandoning and wasting equipment and facilities urgently needed by another.

Let it be granted that the staffs of service hospitals should be demobilized. They could be demobilized and retained in their positions at civilian rates of pay as employees of the Veterans' Administration to permit the continued operation of their hospitals until such time as the VA could expand its facilities to meet its needs.

And many of them would welcome such procedure as an expedient to tide them over the postwar period. The VA is paying prevailing private hospital rates for requisitioned beds anyway.

Such a step would require only a little inter-departmental coöperation and a little cutting of red tape. And it would provide welcome relief in the hospital crisis for veterans and non-veterans alike.—Editorial in San Francisco *Call-Bulletin*, January 3.

President Truman Signs Bill for Veterans' Administration Medical Staff

Washington, Jan. 3.—President Truman tonight signed into law a bill establishing a separate department of medicine and surgery within the Veterans' Administration after resisting heavy pressure from two government agencies to veto it.

General Omar N. Bradley, administrator of veterans' affairs, and Major General Paul R. Hawley, VA surgeon general, have strongly favored the bill as the cornerstone of a strengthened medical and surgical service for veterans.

But opposition to it—for what it doesn't do rather than for what it does—came from two sources:

1. The American Legion, the Disabled American Veterans and the Veterans of Foreign Wars showed open concern because the bill does not specifically call for veterans' preference in granting jobs coming under the bill's provisions. The DAV at first called for a veto so this oversight could be fixed. The other two groups merely called the omission to the attention of the President. After receiving assurances from Bradley that veterans would not be overlooked, the DAV also dropped its objections.

2. The Civil Service and Budget Bureaus have objected to it because it permits Bradley to hire and fire doctors and surgeons without Civil Service approval.

While President Truman could not himself add a veterans preference provision to the bill, he apparently met the veterans group's objections. In a letter to Bradley, he said:

"It is my desire that, in carrying out the provisions of this law, you develop a system of recruitment and placement which will grant priority to qualified veterans and which will also provide against any possibility of discrimination because of race or creed."

The President did not mention the Civil Service objections to the measure.—San Francisco *Chronicle*, January 4.

Medical Veterans Refresher Course—University of California

Intended primarily for Doctors of Medicine recently discharged from active duty with the armed forces is a group of refresher courses which University of California Extension will inaugurate early in 1946, according to Dr. Baldwin M. Woods, Director.

The courses will cover general principles and recent advances in the various divisions of Medicine, related basic sciences, Public Health, Surgery and the surgical specialties. Courses will be offered on the Los Angeles campus two evenings per week, two hours per evening, with lecturers drawn from the faculty of the University of California School of Medicine, from among basic

science professors on the Los Angeles campus, and from among leading physicians and surgeons in the Los Angeles area. A substantial number of refresher lecture courses in medical specialties will be provided. Several outstanding authorities from the East and Middle West will participate.

Immediate application for registration is recommended because of the limited enrollment which can be accommodated. Applications will be honored, insofar as space permits, from Doctors of Medicine in practice. Applications, as well as inquiries as to eligibility under State and National Veterans' Educational Bills, should be directed to University of California Extension, Los Angeles 24, California.

Military Clippings.—Some news items of a military nature from the daily press follow:

Selective Service—Awake at Last

Just short of four years since Pearl Harbor, Selective Service now has advised local draft boards to defer registrants who are teaching or studying physical or chemical science or engineering.

It has taken the government a long time to get around to the idea that it is a waste of the social substance needed in modern war to put highly trained men, or embryo scientists, to peeling potatoes or the manual of arms.

Selective Service did take steps early in the case of doctors and medical students. It was possible to penetrate the Army mind and the sense of politicians with the fact that doctors are needed in a war. But, in spite of persistent urging from competent scientific sources, the draft brass hats went right on classifying chemical, physics and engineering students with talented youths who can play violins, draw pictures or produce literature, gifts that have no bearing on war's necessities.

In the present directive to draft boards, no mention of the atom bomb is made. But that evidently is what has brought official awareness of what almost everybody else has known, that science is essential to the military life and that its human material should be kept in production. —Editorial in San Francisco *Chronicle*, December 2.

MacNider Son Release Brings Plea for Medical Students

Washington, Nov. 28.—(UP.)—Discharge of a General's son so that he could return to pre-medical school brought a demand today for the immediate discharge of all medical and pre-medical students. . . .

Kilday pointed out, however, that medical students must take refresher courses after prolonged absence from school and said that in the face of a shortage of physicians, all should be discharged without delay. . . .—San Francisco *Chronicle*, November 29.

COMMITTEE ON ORGANIZATION AND MEMBERSHIP

Because of war conditions no scientific assemblies were held by the American Medical Association in 1945.

However, with improvement of transportation facilities, the House of Delegates of the American Medical Association held a meeting in Chicago on December 3-6, 1945.

In the *J.A.M.A.* of December 15th (page 1105) and December 22nd (page 1178) appear the proceedings of the House of Delegates. Reports of officers and standing committees and bureaus are presented in detail. Under New Business commencing on page 1189 are given the resolutions presented by delegates from the constituent state medical societies.

The California Medical Association had eight delegates in attendance: Dwight L. Wilbur, San Francisco; S. J. McClendon, San Diego; Lowell S. Goin, Los Angeles; Dwight H. Murray, Napa; H. Gordon MacLean, Oakland; E. Vincent Askey, Los Angeles; John W. Cline, San Francisco; and Donald Cass, Los Angeles.

The C.M.A. delegates presented three resolutions, the same being considered in executive session by the A.M.A. House of Delegates. For the information of C.M.A. members, the resolutions introduced and the action thereon by the A.M.A. House in executive session, follow:

Resolution on Activities of Employees of American Medical Association

(Presented on December 3, 1945)

Dr. S. J. McClendon, California, presented the following resolution, which was referred to the Reference Committee on Executive Session:

WHEREAS, At this time many important problems confront the medical profession; and

WHEREAS, The American Medical Association is in need of the most efficient organization possible in the solution of its problems; and

WHEREAS, Employees who participate in activities outside of the Association cannot render their best service to the Association; therefore, be it

Resolved, That all employees of the Association who are not specifically employed on a part time basis shall be required to devote their full time to the activities of the Association for which they are employed and shall not engage in outside activities from which they derive financial income.

* * *

Resolution on Spokesman for American Medicine

Dr. L. S. Goin, California, presented the following resolution, which was referred to the Reference Committee on Legislation and Public Relations:

WHEREAS, The past few years have seen the development of several organizations designed to protect the corporate body of medicine from governmental encroachment, this development being the reply to the obvious demand and need for such protection; and

WHEREAS, The American Medical Association only recently has created a Council on Medical Service and Public Relations, which by reason of red tape and administrative difficulties has scarcely yet begun to serve its real purpose; and

WHEREAS, The delegates from California believe in this Council, approve of its stated objectives and are desirous of so implementing the Council that it may in fact as well as in theory accomplish those things for which it was intended; now therefore be it

Resolved, That this House directs that the Council on Medical Service and Public Relations shall be the sole spokesman for American medicine; that it shall be given whatever funds it may require to carry out the purposes for which it is intended, and that the Council be directed to retain an executive for full time service, with such secretarial assistance as he may require, the House of Delegates stating explicitly that the qualifications of such executive shall be determined only by the Council.

* * *

Resolution on Council on Medical Service and Public Relations

Dr. Dwight Wilbur, California, presented the following resolution, which was referred to the Reference Committee on Legislation and Public Relations:

WHEREAS, The American Medical Association has created a council on public relations, known as the Council on Medical Service and Public Relations, which Council is charged with the responsibility of representing the American Medical Association to the public and governmental agencies of the United States; and

WHEREAS, The presentation of the official point of view of the American Medical Association by other councils, committees and individuals leads but to confusion and to different and divergent views, with the effect of apparent disunity in the profession; and

WHEREAS, At this time the profession is in need of greater unity than ever before in its history; therefore be it

Resolved, That the Council on Medical Service and Public Relations shall be the sole agency for presentation of the attitude of the American Medical Association relative to matters in which the organized profession should or must make representation to the public or to the government.

Executive Session (December 4)

The Sergeant-at-Arms polled the House, and after a short recess the House went into Executive Session.

Dr. Walter F. Donaldson, Chairman, presented the following report:

Three resolutions were referred to the committee, the first being a resolution regarding the activities of employees of the American Medical Association.

1. Resolution on Activities of Employees of American Medical Association: Your reference committee, aided by the comments of those who attended its hearing and by careful subsequent consideration, respectfully submits the following as its reaction to said resolution: Article 2 of the Constitution of the American Medical Association in twenty words sets forth the objects of the Association as being to promote the science and art of medicine and the betterment of public health. Section 1 of chapter VI of the Association's By-Laws states that the Board of Trustees shall appoint a General Manager and an Editor of *The Journal* and such assistants as may be necessary and shall determine their salaries and the terms and conditions of their employment. Therefore there seems to be little doubt that this resolution, if adopted by the 1945 House of Delegates, would, in effect, express a definite criticism of the administration by the current Board of Trustees, whose multiple, year-round activities involve interim supervision and responsibilities for the success or failure of the policies and plans authorized and approved by each succeeding House of Delegates. Never has this Association stood in greater need of harmony between its legislative and administrative bodies than in the coming year 1946. Your Reference Committee on Executive Session is confident that the Board of Trustees is devoted to and capable of developing and maintaining the most efficient organization possible in the solution of the Association's present pressing problems, provided it has the support of the membership. To this end we would call to the attention of the entire membership of the Association that in the interim between meetings of the House of Delegates the Board of Trustees is an ever open and easily approached avenue for criticism or complaint. We also urge each member of the House of Delegates and others present to make it clear to their constituency that Fellows of the Association will always find warm welcome should they care to attend the meetings of the House of Delegates. Your committee heartily recommends this in order that the members throughout the constituent associations may be properly impressed with the democratic structure and processes of the House of Delegates. Your reference committee recommends to the House that this resolution be not approved.

2. Resolutions on Spokesman for American Medicine and Resolution on Council on Medical Service and Public Relations:

Your reference committee has taken the liberty of considering these resolutions jointly, which deal with expansion of the functions and the implication of the already multiple duties and activities of the Council on Medical Service and Public Relations. The present duties of this council are clearly defined in the By-Laws of the Association, which, of course, are at all times subject to amendment. The members of your reference committee have learned through interviews with members of similar councils of constituent state medical associations that it has been a common exeperience that the magnitude of the subjects assigned to each such council, none of which have been in existence more than two years, has tended to create a certain degree of confusion strongly suggestive that more time will be required for crystallization of activities within the limitations of time available to the personnel of such councils. The members of our committee learned at its hearing this morning, from a former and the current chairman of the Council on Medical Service and Public Relations, that the Board of Trustees of the American Medical Association has throughout shown a completely coöperative attitude and has been generous in the provision of funds and of personnel. It learned too from those who presented the resolutions that their basic objective was and is to encourage the Association and to assist in every way possible in bringing about not only effective but timely action by this new and important council.

With these ideas in view, your reference committee unanimously recommends that the resolutions dealing with the future of the Council on Medical Service and Public Relations be not approved.

Respectfully submitted,

WALTER F. DONALDSON, *Chairman.*
EDWARD JELKS.
JAMES R. MCVAY.
WILLIAM R. BROOKSHER.
THOMAS P. MURDOCK.
W. CLARK BAILEY.
ALLEN H. BUNCE.

Dr. Donaldson moved that the first section of the report of the reference committee, disapproving the Resolution on Activities of Employees of the American Medical Association, be adopted, and the motion was seconded by Dr. A. A. Walker, Alabama. After discussion by several, it was moved by Dr. James P. Kerby, Utah, duly seconded and carried by a vote of 88 to 48 that the vote on the adoption of this section be by secret ballot.

The Speaker requested the tellers to spread the ballot for a vote on the adoption of the first section of the report of the reference committee. The tellers spread the ballot, the Speaker declared the ballot closed and the Secretary announced that 166 votes had been cast, of which 106 were for the adoption of the first section of the report of the reference committee and 60 were opposed.

The Chairman ruled that the first section of the report of the reference committee, disapproving the Resolution on Activities of Employees of the American Medical Association, had been adopted.

It was moved by Dr. Donaldson that the second section of the report of the reference committee, disapproving two resolutions dealing with the functions of the Council on Medical Service and Public Relations, be adopted. Dr. L. S. Goin, California, desired to enter a motion for the amendment of one of the resolutions, which amendment he read and moved its adoption. The motion was seconded by Dr. John W. Cline, California. After discussion, the Speaker ruled that the House hear Dr. Donaldson's report before considering any amendment.

Dr. Donaldson completed the reading of the second section of his report and moved its adoption. Dr. L. S. Goin moved that this be rereferred to the conference committee, and the motion was seconded and carried after discussion by several and this section of the report of the reference committee was rereferred to it.

* * *

Executive Session (December 5)

The House went into Executive Session on motion of Dr. Arthur J. Bedell, Section on Ophthalmology, seconded and carried.

The Sergeant-at-Arms cleared the House of all but those entitled to remain, and the Speaker declared the House in Executive Session.

Report of Reference Committee on Executive Session

Dr. Walter F. Donaldson, Chairman, presented the following report, which on motion of Dr. Donaldson, seconded and carried after discussion, was adopted:

Resolution on Council on Medical Service and Public

Relations and Amendment: Your reference committee has reconsidered the original resolution and has considered the amendment to the original motion submitted to the House of Delegates.

The duties of the Council on Medical Service and Public Relations as outlined in the By-Laws have been reviewed. Your reference committee reviewed the manifold duties of this council as outlined on pages 165 to 180 in the Handbook.

Your reference committee feels that this council is already overwhelmed with work assigned to it that more properly belongs to other committees. Furthermore it believes that this council has done excellent work to date and is to be commended. It feels that the Board of Trustees should clarify the duties of this council. There is evidence that the Council will be assisted materially when the Bureau of Medical Economics is revived.

Your reference committee has been informed that provision has been made by the Board of Trustees to engage public relations counsel.

For the foregoing reasons your reference committee believes that it is unwise to add to the duties of the Council at this time. It further believes that, in the interest of harmony and at such a critical time in American medicine, this is a most inopportune time to consider such resolutions and amendments.

Your reference committee has complete confidence in the Board of Trustees to carry this matter to a successful conclusoin. It feels therefore that, for the reasons outlined in the original report of the committee and those outlined here, the resolution and amendments should be disapproved.

Respectfully submitted,

WALTER F. DONALDSON, *Chairman.*

* * *

Proposed Amendment to the A.M.A. By-Laws, Chapter XII, Section 2

Dr. L. S. Goin, California, submitted the following proposed amendment to the By-Laws, chapter XII, section 2, which was referred to the Reference Committee on Amendments to the Constitution and By-Laws:

Resolved, That section 2 of chapter XII of the By-Laws be amended by striking the words "and subscribe to THE JOURNAL," and further amend section 2, chapter XII, by inserting after the words "is disapproved by the Judicial Council (line 8, p. 30) a new sentence to read "Fellows shall receive *The Journal of the American Medical Association.*" (Note. Resolution lies over for one year.)

* * *

Affiliate Fellowship approved by the Council on Scientific Assembly was granted to the following California physicians: J. David Beatty, Los Angeles; James B. Bullitt, San Jose; H. B. Graham, San Francisco; Edward C. Sewell, Stanford University; J. Morris Slemons, Los Angles; L. G. Vischer, Los Angeles; and N. E. Williamson, Los Altos.

* * *

In the election of officers, Doctor William R. Molony, Sr., of Los Angeles, was elected Vice-President of the American Medical Association. Doctor Dwight H. Murray, Napa, was elected a member of the Board of Trustees of the American Medical Association, to fill the unexpired term ending in 1947, of Doctor Edward M. Pallette, deceased.

* * *

The action taken three years ago to hold the 1946 annual session of the American Medical Association in San Francisco was approved.

WESTERN UNION TELEGRAM
Chicago, December 28, 1945.

Conference of State Medical Association Secretaries and Editors will be held at the American Medical Association's offices in Chicago on Friday, February eight and Saturday, February nine.

Officers and members of official bodies of State Associations and County Societies will be welcome.

First session at ten A.M. Friday, February eight.

Conference will close after Saturday morning program completed.

Signed: OLIN WEST, *Secretary, American Medical Association.*

Los Angeles Hotels For 75th Annual Session, May 7-10, 1946

The official headquarters of the next annual session of the California Medical Association to be held at Los Angeles, Tuesday, May 7 through Friday noon, May 10, 1946, will be the *Hotel Biltmore,* 515 South Olive Street (Olive, between Fifth and Sixth Streets), Los Angeles. Because of postwar conditions and prospective attendance, the facilities of other hotels must also be used.

All requests for reservations must be sent to the hotels direct. In writing, it is well to state the number in the party, date of arrival, date of departure, nature of accommodations desired (single room, double room, double bed, twin beds, bath).

LOS ANGELES HOTELS: WITH TELEPHONE NUMBERS

A list of some hotels in Los Angeles within easy distance of the Hotel Biltmore.

Hotels	*Telephones*
Alexandria Hotel, 210 W. Fifth St.	(MAdison 2741)
Ambassador Hotel, 3400 Wilshire Blvd.	(DRexel 7011)
BILTMORE HOTEL, 515 S. Olive	(MIchigan 1011)
Carlton Hotel, 519 S. Figueroa St.	(MIchigan 6571)
Chapman Park Hotel, 516 S. Alexandria Ave.	(FItzroy 1181)
Clark Hotel, 426 S. Hill St.	(MIchigan 4121)
Gates Hotel, 831 W. Sixth St.	(TRinity 3931)
Hayward Hotel, 206 W. Sixth St.	(MIchigan 5151)
Mayfair Hotel, 1256 W. Seventh St.	(FItzroy 4161)
San Carlos Hotel, 507 W. Fifth St.	(MUtual 2291)
Savoy Hotel, 601 W. Sixth St.	(MAdison 1411)
Stillwell Hotel, 838 S. Grand Ave.	(TRinity 1151)
Town House, 639 S. Commonwealth Ave.	(EXposition 1234)
William Penn Hotel, 2208 W. Eighth St.	(EXposition 3181)

Los Angeles County Medical Association Establishes an Indoctrination Course for Applicants to County Society Membership

The following discussion of an Indoctrination Plan appeared in the *Bulletin* of the Los Angeles County Medical Association of October 4.

The Council of the Los Angeles County Medical Association instructed a committee to proceed with its implementation. Secretary E. T. Remmen of the Los Angeles County Medical Association made the following editorial comments concerning the plan:

"That every applicant for membership in a component county medical association should be required to attend a course of lectures designed to indoctrinate him thoroughly in certain aspects of the successful practice of medicine, was the substance of a resolution recently adopted by the Council of the California Medical Association. The plan was discussed by the Council of the Los Angeles County Medical Association at its last meeting. If the program is accepted, every physician who seeks membership will be required to attend and to pass an examination on the subject matter of a series of lectures by qualified instructors in professional ethics, malpractice prophylaxis, laws governing medical practice and narcotics, the state poison act, public health ordinances,

and laws governing birth, death, and other certificates. The history of our county medical association—its aims, accomplishments and struggles—should be taught to every new member. Each applicant should become familiar with the work of the Physicians' Aid Association and the Medical Milk Commission. He would also derive benefit from information concerning the county hospital, the health departments, the coroner's office, workmens' compensation laws and proper conduct as an expert witness.

"At first thought, it may appear unreasonable to require persons who possess the educational qualifications for membership in this association to attend lectures on these subjects. For some it will indeed be superfluous. Most of our applicants, however, are either recent graduates with little or no experience in private practice or older practitioners who have left former locations. Among the latter are many experienced and capable physicians with excellent records, but with them come others who have migrated because of failure elsewhere. This group needs all the help which can be given.

"The Los Angeles County Medical Association has been a powerful influence in improving the quality of practice in this great county. Its influence will become much greater in the future, but that influence will be great in direct proportion to the quality of its members. It must scrutinize future applicants for membership with the most meticulous care. If doubt exists as to the applicant's past record or as to his character or professional ability, his admission should be deferred until all doubt is removed or until he has practiced long enough in this locality to permit an accurate appraisal of his ability and character. In addition, the most rigid ethical standards should be applied to our own members. There should be no hesitancy on the part of the council to discipline severely the few members whose business tactics are nothing more than extortion, whose manners and conduct are ungentlemanly or who conduct themselves or their practice on a level below that which is suited to a decent community.

"Such members are a very small percentage of the whole, but their names recur again and again in complaints received at Association headquarters. Usually the offenses are not of a nature which permits expulsion under present rules, but they are nevertheless culpable and they discredit every member of the society. With the Council at large and representative as it now is, and with the right of appeal protected, it would seem that the time is ripe to adopt a strict and specific code of ethics with ample penalties which would rid us of the occasional heartless grafter and the still more infrequent uncouth boor who bring more disfavor upon the profession than a hundred honorable men can overcome. These individuals are well aware of the fact that membership in the Association is practically a necessity if hospital privileges are to be retained, and they are careful to keep within the letter of the by-laws as they are written at present.

"The Code of Ethics of the American Medical Association is a statement of principles, rather than a penal code. It is left to each county society to establish its own code. From time to time our own society has adopted enactments governing the conduct of members in specific circumstances. These should be compiled and codified. Obsolete provisions should be repealed and a comprehensive and modern code of professional conduct adopted. This could and probably would be enforced.

"The possession of a license from the Board of Medical Examiners to practice medicine is one thing. It is quite another to be a member of a county medical association. The state license is granted in obedience to laws made by laymen. Medical society membership is granted only to those who meet the approval of their own profession. If undesirables gain admission to the Los Angeles County Medical Association it is because applicants for membership are so numerous that the Committee on Admissions cannot possibly have personal knowledge of them all. If the indoctrination plan is adopted, each applicant and his attitude will become well known to his instructors before he is accepted for membership.

"The state law provides that a license must be issued to those who comply with certain requirements as to education and moral character. Licenses are often issued to recent graduates who have yet to practice medicine without being supervised by faculty members and hospital staffs. A certain percentage of these young physicians lack the character and moral stamina to play the game of life according to the rules. They may use improper methods of getting business, treat their colleagues unfairly, advertise improperly, or form associations with shady individuals and groups. Their need for money may cause them to perform abortions or to issue false certificates of illness. Others succumbs to alcohol and narcotics. Still others use business methods which are dishonest, or at least offensive, to persons accustomed to high standards.

"Membership in the County Medical Association is becoming more and more necessary to physicians. As more hospitals become standardized, it is very difficult for a non-member to find accommodations for his patients. Insurance companies and governmental agencies are seldom interested in a physician who is not a member in good standing of the regular medical organization. The medical profession itself is therefore developing effective police power over its own members above and beyond that possessed by the State Board of Medical Examiners. The time is not far distant when physicians who cannot behave as gentlemen (or ladies) in the highest sense will find themselves engaged in some occupation where fundamental decency is less important.—E.T.R."

COMMITTEE ON HOSPITALS. DISPENSARIES AND CLINICS

California Assemblymen's Hospital Inquiry Held Detrimental

Welfare Council Board Calls Methods Used and Sensational Headlines Unfortunate

The method and nature of the California Assembly Interim Committee's recent hearings on the Los Angeles County General Hospital "has had a detrimental social effect," the executive board of the Welfare Council of Metropolitan Los Angeles declared in a statement on December 13.

"This can be remedied only by a competent, impartial and thorough study of the institution, with proper methods for revealing the essential facts of such an undertaking to the citizens of this community," the statement, signed by Mrs. Sumner Spaulding, president of the welfare council, said.

Skilled Personnel Needed

The statement asserted that in the first place "it is our conviction that an adequate appraisal of health institutions requires competent and skilled personnel."

"It is unfortunate that the interim committee undertook to evaluate medical and related matters about which it could not come to sound judgments without technical assistance."

The executive board, which received a report from its health division, also criticized the emphasis which the hearings placed "upon the so-called 'dissatisfied patient.'" This, the statement continued, "completely overlooked the

very real crisis which all institutions have faced during this war period as regards manpower and related shortages."

"In our view," the board added, "the management of this institution has done an admirable job in the face of these difficulties, while the record shows conclusively that these public officials have continuously called public attention to critical shortages and handicaps under which these institutions operate."

The board also deplored publicity given in some newspapers "to the small but articulate group of dissatisfied citizens."

"Charge Without Basis"

It added that sensational headlines in a newspaper constituted not only "a serious charge with no basis in fact, but a psychological blow of damaging proportion to the sick of the community within and outside the hospital.

"The evidence shows that this has had a negative effect on the attitude of the citizens generally in respect to one of its public institutions and has served to undermine much needed confidence and well-deserved faith in this particular institution."

New $120,000 Nursery Clinic

On December 10 Children's Home Society of California, at 3100 W. Adams Blvd., Los Angeles, opened its new clinic.

The newest facility of the nonprofit State-wide adoption agency will house infants requiring special care immediately following birth and will also maintain a clinic for children of all ages, as well as quarters for staff training and similar activities. It is being financed by individual private subscriptions, a major proportion of which already have been contributed.

Dante Hospital in San Francisco

Purchase of the Dante Hospital of San Francisco by the Roman Catholic Church for operation as a general hospital, was announced on December 6.

Spokesmen for Archbishop Mitty said operation of the hospital will begin when the Army gives up the establishment in about 18 months. The church, it was said, was the actual purchaser when the property was acquired last week for $750,000 by a group of doctors headed by Dr. Edmund J. Morrissey.

Jewish Charities Open Drive For Proposed Health Center in San Francisco

A campaign is under way to raise funds for the proposed new Maimonides Health Center, planned by the San Francisco Federation of Jewish Charities to care for the chronic sick.

A site has been selected on Sutter Street, near Mt. Zion Hospital, to facilitate use of that hospital and its medical staff.

The health center project has been indorsed by the Social Planning Committee of the Community Chest, Dr. Wilton L. Halverson, State director of public health; Dr. J. C. Geiger, city health director and Dr. Harold Brunn, Mt. Zion hospital chief of staff.

The center is designed to meet an increase in chronic illness. It will provide unlimited medical therapy to all on a pay, part pay or free basis, it was announced.

New $1,000,000 Unit of Queen of Angels Hospital

A new $1,000,000 maternity unit was dedicated on December 10, at Queen of Angels Hospital, by Archbishop John J. Cantwell in ceremonies at Los Angeles, attended by church and civic leaders and several hundred friends of the institution.

Addition of the 177-bed wing makes Queen of Angels the largest private hospital west of the Mississippi, Dr. Lowell S. Goin, chairman of the medical advisory board, who presided, declared.

Msgr. Thomas J. O'Dwyer, director of Catholic charities for the archdiocese, thanked officials of the U. S. Public Health Service for approving the construction program to help alleviate the critical hospital shortage here, and praised the Franciscan Sisters, who, he said, "reflect here the charity of Christ."

The sisters and hospital staff were also lauded by Joseph Scott, attorney and prominent Catholic layman, who asserted, "I am here as example No. 1 of how they can keep a man with a vile temper and bad habits alive to the age of 78."

U. S. Senate Approves Hospital Bill

Legislation providing grants to states for construction of hospitals, as President Truman proposed in his message this week to Congress, has already been reported favorably from the Senate Committee on Education and Labor.

It would, if passed, provide for allotment of $1,900,000 to California each year for five years, for hospital construction, provided state, local and private funds to the extent of $3,980,000 were provided for matching.

The bill was reported October 30.

"Lack of health facilities—properly placed and adequately equipped—represents one of the weakest spots in our national health structure," the report says. "Preventive medicine, although still inadequate, at least rests upon the firm foundation of local, state and Federal governmental support of public health services. Medical care, predominantly in the hands of the private physician, is normally available and of better quality in communities where hospital facilities are adequate, and sometimes unavailable or of inferior quality where hospitals are lacking."

The Committee recommended a construction program under the direction of the U. S. Public Health Service. Its bill authorizes expenditure of five million dollars for allotment to the states to survey their hospital needs and plan to meet them. It authorizes $75,000,000 for allotment to the states for construction, every year from 1947 through 1951.

The money would be allotted on a formula based on the per capita income of each state, population and ratios with the national figures.

California, having the third highest per capita income in the country (Connecticut's and Nevada's are larger) would get a relatively small share of the $75,000,000. . . .
—San Francisco *News*, November 24.

Problems Confronting American Hospitals

Arthur C. Bachmeyer, M.D., Director, University of Chicago Clinics, Director of Study, Commission on Hospital Care, in a communication to the House of Delegates of the American Hospital Association, outlines as follows:

Confronted with immediate problems within their own institutions, hospital administrators seldom have opportunity to plan for the future development of their own institutions, much less for the health facilities of their communities and of the country. To meet the increasing demands for hospital service, it is necessary to understand the trends influencing hospital functions.

Construction or extension of hospital is usually preceded by planning limited to a study of the extent, ca-

pacity for service and future prospects of the individual institution. Many health leaders, including hospital administrators who initiated the Commission on Hospital Care to study hospital facilities in the United States, are working earnestly on plans to extend and better coördinate the nation's hospital facilities. Some broad relationship problems confronting American hospitals today have been crystallized by the preliminary experience of the Commission on Hospital Care.

The discrepancies in services offered by hospitals in smaller communities as compared with those in metropolitan areas may be lessened to mutual benefit through the development of organic relationships and coördination between and among these institutions.

To perform fuller services in general hospitals, the small and also many of the large, and to provide adequate care to meet the public need through an effective and economic operation, the following services must be considered:

Special facilities for the care of acute communicable diseases, early stages of nervous and mental diseases, and chronic diseases.

Routine x-ray of patients and personnel for traces of pulmonary tuberculosis; rehabilitation programs and other provisions for increased service to convalescents; organized personnel training programs, with larger hospitals possibly training employees for small institutions.

Further development of the hospital as a health and medical center.

More ready availability of hospital facilities in rural areas, solution undetermined.

Extended public health activities and coöperation.

Pursual of better business methods and promotion of Blue Cross, with the correction to a cost basis of governmental payments for the care of indigents.

Experiences during the past war years have placed hospitals in an enviable position financially, in medically advances, and in public confidence. Because of the recent scarcity of building materials now released, they find themselves on the threshold of a great expansion program. An integration of service will lead to a strong hospital system and benefit individual institutions and public alike. Voluntary organization for the systematic distribution of hospital service to solve a public problem and provide a public service appears to be within reach of hospitals today.

COMMITTEE ON ASSOCIATED SOCIETIES AND TECHNICAL GROUPS

California Above National Average But Below Standards in Public Health Nurse Employment

The United States now has a total of 20,818 public health nurses, or one public health nurse for every 8,300 people, according to statistics supplied by the United States Public Health Service.

The distribution of public health nurses according to population ranges from one public health nurse to every 2,900 people in an Eastern State to one for 18,300 people in a Southwestern State. There are 909 counties without a public health nurse.

The last count made in California was on January 1, 1945. On that date, there were 1,440 public health nurses employed, or one for every 6,141 persons based on a population estimate of 8,842,700.

The minimum standard advocated by public health authorities is one public health nurse to every 2,000 to 5,000 population.

In California 14 counties had one nurse to every 5,000, or less, population. They are: Alpine, Del Norte, Inyo, Kings, Marin, Mariposa, Mono, San Diego, San Luis Obispo, Santa Barbara, Solano, Sutter, Ventura and Yuba.

The population served by one public health nurse was 10,000 or more in eight counties; Humboldt, Mendocino, Napa, Placer, San Benito, San Joaquin, Siskiyou and Stanislaus.

The people in six counties did not have the service of a public health nurse on January 1st. They are: Calaveras, Colusa, Glenn, Plumas, Sierra and Trinity.

Although the total number of public health nurses employed in the nation is reported to have remained static during the war, the number in California increased by 127 from January 1, 1944, to January 1, 1945.

On Relationship Between Medical and Nursing Professions

A recent questionnaire on the relationship between the medical and nursing professions includes the queries listed below. Members of the two professions, who are interested, may wish to make mental answers to the questions that follow:

QUESTIONNAIRE

1. What effect, if any, has the war had on:
   - (A) Medical-nursing relations in this country?
   - (B) Nursing skills and methods?
2. What are the maladjustments between the nursing profession and the medical profession?
   - (A) Real maladjustments?
   - (B) Mental maladjustments? (that is, in people's minds due to apathy, ignorance, prejudice, etc.)
3. What do you recommend to improve nursing-medicine relations as between:
   - (A) Medical societies and nursing organizations?
   - (B) Educational bodies of both groups?
   - (C) Hospital administrations and nurses?
   - (D) Physicians and
     1. Hospital nurses?
     2. Public Health Nurses, including industrial?
     3. Private Duty Nurses?
     4. Nurse educators?
   - (E) Nurses and their patients?
   - (F) Physicians and nurse placement services, i.e., registries and the like?
4. What do you think the future trend of thinking in the medical professoin will be as regards:
   - (A) The use of practical nurses?
   - (B) The more extensive use of nurses through the provision of:
     1. The Social Security Act and other federal legislation?
     2. Voluntary prepayment plans for medical and hospital care?
5. What steps do you think should be taken to improve the relationships between the medical and nursing profession?

Shortage of Nurses

Hospitals Reported Forced to Reject Patients—It's a Statewide Problem

"Two hundred and fifty registered nurses are needed in San Francisco hospitals immediately. Critically ill patients are now being turned away from hospitals because there aren't enough nurses to provide them with minimum care."

This condition was announced on December 1, by the San Francisco Hospital Conference.

At a meeting of officials of the conference it was reported a canvass of its membership, comprising the 18 principal general hospitals of the city, revealed more than 100 beds are not being utilized in those hospitals due to the lack of nurses. Authorities stated the shortage has reached the danger point.

The County Nurses Association reported that of approximately 1,000 San Francisco nurses who entered the armed services, more than one-half came from hospi-

tals. To date, only nine have returned to hospital service.

According to Charles A. Wardell, President of the Association of California Hospitals and a member of the San Francisco Conference, the only way the present emergency can be met is for registered nurses who are not employed in hospitals to report to their Association immediately for such duty. He asked that all Red Cross Nurses' Aides assume voluntary hospital work.

Mr. Wardell said the nurses' shortage exists throughout the State. He revealed that more than 40 per cent of the nurses working in 300 Association of California Hospitals were called to duty with the armed services. A majority of student nurses in the State were enrolled into the nursing division of the medical corps upon graduation, he said.

An act of the last State Legislature enabled hospitals to employ graduate nurses from out of State, Wardell stated, but their term of service expires immediately after Congress declares the official termination of hostilities.

"Every hospital in this State needs nurses," Mr. Wardell declared. "Wards and rooms are being closed and this condition will continue until those nurses who are available and are unemployed, or who are employed in other positions, come forth to assist in meeting a situation which is more acute than it has been since Pearl Harbor."—San Francisco *Chronicle*, Decmeber 1.

"Back to School" Is Choice of Nurse Veterans

Education—advanced or supplementary—is challenging graduate professional nurses today to an unprecedented degree.

Nurse veterans can receive educational benefits under the G.I. Bill for a year's work in approved institutions, or longer in specified cases; if disabled, they may, under Public Law 16, receive up to a maximum of four years' education.

Bolton Act funds for postgraduate study over a period ending June 30, 1946, are still aiding other nurses, admitted before October 15.

Alumnae and other scholarship funds, some of them left intact during the war, are now being drawn upon by others.

Preparation for the responsibilities of postwar nursing is the goal of many, in military service and out. But choice of sound programs of study is not always easy.

To assist nurses and their counselors in the choice, a summary of criteria is being developed by the National League of Nursing Education. Descriptive lists of courses and programs, though not accredited by the League, are available for (1) advanced programs leading to a degree in universities and colleges; (2) clinical nursing courses available for graduate professional nurses. (15c for the first, 25c for the second, from the NLNE, 1790 Broadway, New York 19, N. Y.)

War's End Brings Changes to All Fields of Nursing

Return to civilian life of many Army nurses—25,000 by January 1; 15,000 more by June 1.

Return of many Navy nurses—2,000 by February, 7,000 by September.

Ending of Procurement and Assignment Service by January 1, and recommendation that voluntary state groups take over committees' records and most essential activities.

No immediate change in hospital and other civilian nurse shortages.

Continuing campaign to "Help Hospitals" maintain nursing services.

Urgent need of Veterans Administration hospitals for 2,000 more nurses.

End of recruiting for Cadet Nurse Corps of U. S. Public Health Service but continuation of Bolton Act funds for all students accepted before August 21 and entered by October 15.

Need for new philosophy and procedure for recruiting student nurses.

Continuation of senior cadet program, but with maximum assignments to Federal Government nursing services limited in line with decreasing military and naval needs.

Continuation of Bolton Act postgraduate scholarshpis no later than June 30, 1946, for nurses enrolled by October 15.

Impetus to advanced study by former Army and Navy nurses, under provisions of G.I. Bill and other laws.

Stimulus to further development of the American Nurses' Association Professional Counseling and Placement Service, Inc., through national, branch, and state offices.

Shift of Red Cross nurse recruitment duties to hospitality and information for returning nurse veterans.

New responsibilities for those in administrative or leadership positions.

Imperative need for thorough-going studies, as proposed by National Nursing Planning Committee, on which to build for the future.

Premium on vision, imagination, and flexibility in guiding nursing into the postwar era.

Growing recognition that no return to prewar era is possible; that a spiral, not a circle, is the course for any profession that has spring or lift to it.

COMMITTEE ON INDUSTRIAL PRACTICE

Los Angeles Industrial Health Program Praised By U. S. Chamber of Commerce

The program sponsored during the war by the Los Angeles Chamber of Commerce is cited by the U. S. Chamber of Commerce as an outstanding accomplishment in the improvement of industrial health.

In a leaflet, *Industrial Health—A Tale of 3 Cities*, the programs in Los Angeles, Williamsport, Pa., and Philadelphia are described. Probably the most important contribution to the success of the Los Angeles program was the leadership shown by businessmen and officials of health agencies in pooling the services of several agencies in a single program.

Because the pattern followed in Los Angeles is an interesting one and because it is adaptable to any California industrial city, the section dealing with the program is reproduced below.

"Los Angeles, one of the great centers of war production, with its 8,000 industries, has recognized the opportunity for manpower conservation and increased production through the development of health services in Los Angeles plants and a plan of worker health education.

"The program for stimulating industrial medical service in Los Angeles plants was organized through the Industrial Security Section of the City and County War Council, which is housed and staffed by the Chamber of Commerce. Such a program, it was recognized, must have the coöperation of the medical and dental professions and of public health officials. These groups, therefore, were called together and asked to nominate members for an Industrial Health Advisory Council. The council in its final membership included representatives from the Los Angeles County Medical Society, the several dental associations in Southern California, the Los Angeles Tuberculosis Association, and Federal, State, county and city public health officials. This grouping of private and

public health agencies made possible the allocation of work to the proper agency and substituted full coöperation for what might have been intergroup competition....

Commenting upon the program, Dr. George M. Uhl, Los Angeles City Health Officer, says, "To the 7,000 pieces in each mailing sent out by the council, there was an average of 200 or 300 replies for further information. The city and county health departments and the Tuberculosis and Health Association made the visits according to the location of the plant and the nature of the subject of the current mailing. The final 'convincer' was the personal contact of these field workers meeting with management."

One accomplishment of the program, omitted from the report, is the part the council played in getting *Unseen Enemy*, the radio program on venereal diseases, on the air. This program, sponsored by the State Department of Public Health and local health departments, grew out of the initial broadcasts of the council.

CALIFORNIA PHYSICIANS' SERVICE†

Beneficiary Membership

	November, 1944	*November, 1945*
Commercial Program	101,000	152,084
Rural Health Program	2,038	2,133
War Housing Program	15,000	3,799
	118,038	158,016

The Board of Trustees held the regular meeting on Sunday, December 9, 1945, and there were present: Trustees Chester L. Cooley, C. Glenn Curtis, J. Frank Doughty, Donald D. Lum, H. Randall Madeley and A. E. Moore.

There were also present: Doctors A. E. Larsen, G. D. Delprat, and Messrs. Hartley F. Peart, Howard Hassard, W. M. Bowman and R. W. Lyon.

Dr. Delprat, Chairman of the Fee Schedule Committee, appeared before the board to discuss the current status of the revision of the fee schedule. After considerable discussion it was felt that the schedule could be further improved upon before final acceptance. It was the expressed wish of the board that the committee, set up by the board of trustees, was for the purpose of getting the reaction of the profession generally and those specifically from physicians who are not officially connected with C.P.S. The schedule would thus represent changes coming from an independent committee and not from a board of trustees arbitrarily making decisions.

In order to bring the committee and the board closer to an understanding it was moved that a special meeting be held, with the fee schedule committee sitting with the trustees, to discuss in detail the proposed new fee schedule.

In the interest of further increasing the efficiency in the operations of C.P.S. under its new accounting system, which has recently been installed by the office accountants in consultation with the Certified Public Accountants retained by C.P.S., it was moved that all professional members be notified that bills must be submitted within 90 days after the month service is rendered. This had become necessary because the hidden liability of outstanding bills seriously affects business operations. The beneficiary members will also be notified that no claim on their part may be accepted unless they are submitted within a period of three months after a service has been rendered.

On acquisition, it was reported that the October enrollment was 10,107 new members, and November produced 17,382, making a total for the two months of 27,489 persons. The net gain, however, was only 2,349 due to labor turnover, occasioned by unsettled labor conditions.

The offering of C.P.S. membership to physicians and their office staffs produced 1,529 persons. This is not as large as was expected or desired. It was suggested that another reopening be held. This will be done some time in the spring of 1946.

Community programs were held at Ventura and Alhambra. These programs brought together business and other interests in the community with the medical profession, and have been highly successful. Similar programs have been contemplated for other areas.

Sixty-six physicians became new professional members during November, bringing the total professional membership to 5,686. One hundred and one physicians reported back from the military service in November and renewed their membership in C.P.S.

Dr. Herbert D. Simpson, Professor Emeritus from the Department of Economics at Northwestern University, with an international reputation in the field of medical economics, spent several days in the offices of C.P.S. gathering material for a report to the National Physicians' Committee. He was particularly interested in the historical and political background of the plan because of his belief, in studying other plans, that these factors are responsible for the difference in basic organization and future objectives. He was also particularly interested in why medical plans have not grown as fast as they should. He expressed the unofficial opinion that this was due to lack of a unified front of the profession as a whole. His reports will be published shortly.

Mr. V. M. Griffin, actuary for the Assembly Health Care Investigating Interim Committee of the California State Legislature, also spent several days in the offices of C.P.S. His interest was particularly directed toward the costs of medical care. He was furnished with extensive past and current material. Special studies supplementing this information will also be made and furnished to the committee.

C.P.S.'s experience during the months of June and July showed an abnormally high use of service. This experience was the result of the war's end and the attending labor unrest and temporary unemployment. This has resulted in people taking the opportunity to have the many corrective procedures performed that were postponed before due to "war urgency" jobs which demanded their full time. It was pointed out that this was not only true in C.P.S.'s experience but in other plans as well; not only in this state but others.

A complete diagnostic and cost analysis of C.P.S.'s experience during these months was presented and it

† Address: California Physicians' Service, 153 Kearny Street, San Francisco. Telephone EXbrook 0161.
Copy for the California Physicians' Service department in the OFFICIAL JOURNAL is submitted by that organization.

showed the highest experience in the field of elective surgery.

Hospitalization is becoming an important part of C.P.S.'s activity in the Northern part of the state, accounting now for 14 per cent of the income. Hospital rates are rapidly increasing and show a definite inflationary trend.

The housing program at Marin City was closed as of the end of October. Two ex-service physicians went into private practice in the area to supply the medical need. The Vallejo housing plan will be closed as of January 1, 1946. The Permanente program will probably extend its services from another part of Vallejo to the Chabot Terrace where C.P.S. is discontinuing.

The board was presented with reports of the C.M.A. Study Committee and also from the C.M.A. Advisory Planning Committee. This latter committee requested necessary information "to study and review all phases of C.P.S. including a study of present policy, personnel, operating procedures, finances, public and professional relations, actuarial experience to date and soundness of insurance principles followed in practice." Complete available information relative to these subjects was supplied to the committee.

The board authorized C.P.S. to enter into a reciprocity agreement with other medical service plans throughout the country.

CHESTER L. COOLEY,
Secretary, Board of Trustees.

U. S. Contracts With Doctors to Treat Veterans at Home—Makes Contract With Michigan State Medical Society

Washington, Dec. 28.—(AP.)—Establishing a new policy to relieve its crowded facilities, the Veterans' Administration today announced a contract with Michigan physicians to treat ex-soldiers at home.

The contract is with the Michigan State Medical Society. It provides for its member doctors to treat war veterans whose disabilities are service connected but do not require hospitalization.

New Plan

Another plan nearing final approval would permit veterans to be hospitalized in their own community hospital instead of a Veterans' Administration institution. The Veterans' Administration would pay the bill.

Maj. Gen. Paul R. Hawley, acting surgeon general of the Veterans' Administration, said that if the Michigan plan is successful it will be used in other states.

First Contract

A Veterans' Administration statement said that this is the first time a contract has been signed on a statewide basis for care of veterans by private physicians.

Hawley called it a "stop gap" plan until Veterans' Administration hospitals, with a capacity of 44,000 beds, can be constructed and more hospitals can be obtained from the Army and Navy. This plan is expected to take two years to complete.—San Francisco *Examiner*, December 29.

Veterans' Health: C.P.S. Doctors Propose "Home Town" Medical Program

A program to give veterans with service-connected disabilities "home town medical care" at government expense is expected to be completed within the next 30 days.

The program, already approved by Northern California physicians and expected to be accepted by Southern California physicians Wednesday, is subject to approval of the Veterans' Administration. The plan would allow patients to choose their own physicians.

The proposed standard minimum fee contract between the California Physicians' Service and the Veterans' Administration is virtually identical with one approved by the Veterans' Administration for Michigan. Approval would make California the second state with such medical service.

William Bowman, executive director of the California Physicians' Service, declared 70 per cent of currently discharged veterans are claiming service-connected disabilities, in contrast with 9 to 10 per cent of World War I.

Reason for the higher volume of disability claims in this war, Bowman said, are (1) the first discharges had the longest war service, (2) the war was longer than World War I, (3) many new diseases were encountered, particularly in the tropics, and (4) the global nature of the conflict imposed trying physical conditions.

Bowman said the California Physicians' Service would provide 6,000 physicians for applicants who had been screened for legitimate service-connected claims by staff physicians of the Veterans' Administration.

Aid to Hospitals

Standardized minimum fees would be specified for service, ranging from office calls to operations. Bowman is scheduled to present the contract in Washington, January 7.

General Omar N. Bradley, Veterans' Administrator, in announcing the Michigan contract, said the primary purpose of the program is to ease critical pressure on Veterans' Administration hospitals.

Federal law specifies veterans with disabilities not traceable to military service can be treated only if space is available in Veterans' Administration institutions and they have no money with which to pay a private physician.

For that reason, they are not eligible to participate in the program.

The Advantages

Veterans' Administration officials said, however, according to Associated Press, the plan may lessen demand for government hospital care because:

1. More veterans with service disabilities may be treated in home towns, thus freeing room in admintration institutions for patients with non-service disabilities. Of 88,000 veterans now receiving government care, about 60,000 have non-service ailments.

2. Home-town treatment of veterans reduces the period of hospitalization. When veterans travel long distances to Federal hospitals, they frequently are kept for a month or longer for "observation" while convalescing. At home, they may leave the hospital and still be under observation of their family physicians.

Bowman said the medical profession also was enthusiastic for the plan because it avoids what they regard as the dangers of "socialized medicine" by leaving choice of physician to the patient at a minimum fee.—San Francisco *Chronicle*, December 30.

State Veterans to Get Care in Home Cities—In Coöperation with California Physicians' Service*

Home town medical care will be given to California veterans with service-connected disabilities.

This is provided in a contract signed yesterday in Washington by the Veterans' Administration and the California Physicians' Service.

The veterans will be treated in their home communities, at Federal expense, by physicians of their own choice.

The information was telephoned to the *Chronicle* last

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* For editorial comment, see page 4.

night by William F. Bowman, executive director of the Physicians' Service.

The contract was completed by Bowman, Dr. A. E. Larsen, State medical director of the service, both of San Francisco, with Generals Omar Bradley and Paul Hawley of the Veterans' Administration.

Veterans with service-connected disabilities will be saved the inconvenience of long trips to Veterans' Administration hospitals and long periods of treatment and observation away from home.

The contract becomes effective February 1 and makes available 6,000 physicians of the State organization, out of a total of 6,800 private practicing physicians in California.

Medical services will be made available at standardized fees, covering all phases of medical and surgical treatment.

A procedure will be set up under which Veterans' Administration officials will screen applicants for legitimate service-connected claims.

Global War Hazards

Of California's 1,300,000 veterans, 944,000 served in World War II, Bowman said. He stated that 350,000 are veterans of World War I, 16,000 of the Spanish-American war.

Seventy per cent of currently discharged veterans claim service-connected disability, Bowman declared, as compared to 9 to 10 per cent in the last war.

He attributed the higher percentage in this war to length and intensity of the conflict, and the varied hazards of global war.

Bowman said no other State has a comparable problem of veterans' health. A similar arrangement, first in the United States, was made two weeks ago in Michigan but involved only 300,000 to 400,000 veterans, he said.

1,000 a Month

But, he added, California's veterans are increasing rapidly. Veterans' Administration officials would not give an official estimate of the number moving to this State, but Bowman declared the rate is close to 1,000 a month.

By serving veterans in their own communities, he said, local physicians can keep patients under surveillance, if necessary, avoiding such interference with his private life as would occur through service at veterans' hospitals.

Both General Bradley and General Hawley are planning to come to California soon, Bowman said, and have expressed much interest in the home care plan. The California program is expected to set a pattern for the rest of the country in veterans' care.

Veterans' Administration officials, believe the plan will eventually free existing veterans' facilities for treatment of illnesses not contracted in the services. A large part of present facilities are so used for non-service-connected disabilities.—San Francisco *Chronicle*, January 9.

Los Angeles County Hospital Load Sets Record

During the week of December 10, the patient load at the Los Angeles County General Hospital had reached a total of 3,033, the highest in the history of the institution, according to a report on file with William A. Smith, chairman of the Board of Supervisors.

Superintendent Will in his report explained that private hospitals now are taxed to capacity with the result the county institution is receiving many emergency cases that otherwise might be cared for elsewhere.

The world is like a board with holes in it, and the square men have got into the round holes, and the round into the square.

—Bishop George Berkeley, (*Punch* is responsible)

COMMITTEE ON PUBLIC POLICY AND LEGISLATION

Pre-Legislative Maneuvers at Sacramento

Political Groups in Sacramento Prepare For Special Session

Sacramento, Jan. 5.—California's 1946 campaign was off to an early start on January 5, with Governor Warren polishing up his message to the special session of the Legislature, beginning Monday, January 7, and just a few blocks from the Capitol a State-wide group of citizens interested in promoting a postwar program was holding a meeting of its own.

Predictions by Speaker Charles W. Lyon of the Assembly and others indicate that consideration of the 53 items submitted to the lawmakers by the Governor will require from six to eight weeks.

Some legislators even suggested it may be necessary to recess until after the June 6 primaries if the programs of "reconversion" measures are not disposed of by the Senate and Assembly before campaigning begins early in March. . . .

Early arrivals among the legislators had little knowledge as to who will handle the individual bills to be introduced and supported by the State administration. Some of the Governor's friends feared the Warren group might fumble the legislative ball again by failure to have key measures ready for introduction in the Senate and Assembly. This would enable some of the anti-Warren lawmakers to grab some of the more important bills and dump them into the legislative hopper. . . .

The Governor steered away from demands he reopen the compulsory health insurance controversy which marked the 1945 regular session.

Instead he called upon the Legislature "to consider and act upon legislation to provide for sickness and disability payments to unemployed persons." Payments, it is contemplated, would be made out of the unemployment insurance reserves of the State. . . .

A careful perusal of the list of topics submitted by the Governor indicates he will have stolen considerable political thunder of his prospective opponents if he can obtain legislative approval of his program.

The inclusion of some of the items also shows the Governor is not completely oblivious of the fact that an election is just around the corner.—San Francisco *Chronicle*, January 5.

Governor Warren's Plan for Spending Surplus Fund

Sacramento, Jan. 5.—Governor Warren will support a program of postwar fund appropriations of around $227,000,000 at the special session of the Legislature, beginning Monday, January 7.

The Governor's ideas of spending the $235,000,000 extra money in the State Treasury differ considerably, he said, from those of some of the legislators.

Breakdown of Items

If the Governor's ideas are followed, this is about the way the surplus funds will be allocated:

$154,000,000 for State construction purposes at hospitals, colleges, institutions, prisons. . . .

$7,000,000 for a new medical center with hospital facilities, nurses' quarters, etc., at the University of California at Los Angeles.

$4,000,000 for expansion of the University of California's medical center at San Francisco.

$1,650,000 for taking over the U. S. Hammond General

Hospital at Modesto as an emergency institution to relieve crowded conditions in various State hospitals. . . .

$5,000,000 for housing, and $10,000,000 for urban redevelopment.

The Governor's program would leave but a small slice of the $90,000,000 item put aside at the last session. . . .

Governor Warren told newsmen there still would be needed an appropriation for child care centers if these are to be continued after March 12 when Federal funds will no longer be available to aid in financing the centers, a wartime growth.

The Governor contends that "obligations of the Legislature and myself" must be to provide funds for State responsibilities and to carry forward projects to which the State is already committed. . . .

Likewise, he will support a full employment bill and legislation to provide for sickness and disability payments to unemployed persons.

Warren believes the $735,000,000 unemployment insurance reserves will be "ample for all foreseeable needs." It would be from these funds that the sickness and disability payments would be made. — San Francisco *Chronicle,* January 5.

Items in Governor Earl Warren's Call for Special Session of California Legislature Having Medical or Public Health Relationships

Governor Earl Warren issued a call for a special session of the California Legislature to convene in Sacramento on Monday, January 7. Fifty items were placed in the call, each to receive consideration. At a special session of the Legislature, matters not related to items issued in a call cannot be considered.

The fifty items listed by Governor Earl Warren contain several that have direct or indirect relationship to medical practice or public health. These items follow:

1. Housing. Legislation necessary to meet the emergency situation, including any appropriations required.
2. Child care centers.
3. Creation of a hospital survey commission and an appropriation for its activities.
4. Establishment of a medical school of the University of California at Los Angeles.
5. Authorization to State Compensation Insurance Fund to acquire and own real property for branch offices.
6. Authorization for the State to pay counties for service rendered in inspecting boarding homes for aged persons and for children.
7. An increased appropriation for the Department of Mental Hygiene to finance additional outpatient clinics and the maintenance of a new temporary State hospital.
8. Increase in the amount allowed to be paid by the Department of Mental Hygiene for the boarding of mental patients in boarding homes.
9. Appropriation to State Health Department for Mosquito abatement.
10. Legislation for the State to regulate disposal of ship garbage to curb hoof and mouth disease.

C.M.A. CANCER COMMISSION

Cancer Program for California

State Society Adopts 10-Point Plan for Research

A better deal for the cancer sufferers of California is in the making as result of a recent meeting in the offices of the California Medical Association of a group of leading physicians of the California Division of the American Cancer Society with Mrs. Ryer Nixon, State commander of the Women's Field Army at the San Francisco headquarters.

A 10-point program was adopted by the California Division following a report from the American Cancer Society that money raised in the April campaign will be used for reseach, service to cancer victims, and broader education aimed at better understanding of the disease.

The California program will provide for terminal beds in recognized hospitals for the care of incurable patients who are unable to obtain such care in their own homes or to pay for it in a hospital; financial assistance to approved clinics; payment of salary of nurse for cancer cases connected with the Visiting Nurses' Association; financial assistance to doctors wishing to take refresher courses given in San Francisco and Los Angeles hospitals; provision of materials for free cancer dressings to be given to out patient clinics and Visiting Nurses' associations; provision of educational printed matter for distribution; transportation of indigent patients to and from clinics when approved by Public Welfrae; grants for clinical studies to hospitals and universities; endowed beds for operative cases; and the making and distribution of films of educational value on cancer facts.

Some of this program is already in effect. It will be financed by the 60 per cent of the funds that will remain in the State after the April drive . . . the remaining 40 per cent will be sent to the national organization to be used in research under direction of a professional board.

Dr. Lyell C. Kinney, of San Diego, chairman of the board, told of chemical compounds developed through the army's chemical warfare activities, which have been found to have a very considerable effect on malignant growths, causing at least temporary improvement in one type of cancer.

"There are hundreds of other chemicals which should be tried, thus opening an entirely new type of study," he said. "Information on nuclear energy will also be used in the search to find some way to use radioactivity to destroy cancer without injuring normal tissue."

Other findings of the American Cancer Society reported at the meeting were the need for at least 10,000 more beds for the care of cancer patients, 165,000 of whom die annually, and the need for more education on cancer through school text books. Dr. Kinny earnestly supported the plea made at the national meeting held recently in Chicago for "better and more humane care of the terminal cancer case."

Present at the San Francisco meeting last Saturday, in addition to Dr. Kinney and Mrs. Nixon, were other members of the Cancer Commission of the California Medical Association, including Drs. David Wood, Harold Brunn, William H. Daniel, Orville Meland, James F. Rinehart, George Sharp and Henry Ullman and Judge C. J. Goodell.—San Francisco *Chronicle,* January 9.

What the Public Knows About Poliomyelitis

Results of a Gallup poll reported recently in the press indicate that the public knows little about the much publicized disease, poliomyelitis, and what is known by many people is wrong.

About one-third (30 per cent) of the people interviewed have exaggerated fears of the disease, believing that poliomyelitis always leaves its victims crippled or paralyzed.

Only half of the people thought infantile paralysis is communicable, 29 per cent thought it definitely was not communicable and 22 per cent had no opinion.

Replies to the question, *"What do you think causes infantile paralysis?"* in order of mention are: Don't know, 48 per cent; germ (virus), 25; flies or insects, 9; unsanitary conditions, polluted water, 6; improper diet, malnutrition, 3; improper care, overexertion, weakening of system, 4; nerve defect, 2; inherited, born that way, 1; poor blood circulation, 1; miscellaneous, 7; cause not yet discovered, 2.

COMMITTEE ON MEDICAL ECONOMICS

What Dorothy Thompson Said Concerning President Truman's Health [Sickness] Insurance Message, and Wagner Bill S. 1606

The phrase, "economic bill of rights" has a magical quality like "liberal" and "progressive." Just attach one of those words to a measure, and critics back down as though before a fetish. But in a world where progress moves on crutches conservatism may mean in some cases the last stand of liberty and common sense.

Few "liberals" are likely to reveal the illiberality of part of the proposed Federal health scheme. Some of it is excellent. A widespread hospital construction program is urgently necessary, and for that Government can make the economic grant of credit. . . .

But the main part of the proposed measures—universal compulsory Federal insurance against illness of every wage and salary earner by a tax of 4 per cent on his income up to $3600 will, if past experience elsewhere is a guide, mean vast overpayment for inferior services; that the poor pay for the rich, and not the other way around, and that income which should go for illness prevention in the form of nutrition, clothing and shelter will be forcibly extracted to pay for the results of deprivation.

The only people who will profit will be the new ranks of bureaucrats, two for every physician, supported by the people's contributions. The expenditure for ink will exceed that for iodine.

On the matter of state medical care through enforced contributions there is plenty of evidence. Like Communism and Nazism, it is a German invention arising out of Bismarck's concept of the providential state that would forever prevent revolt by tying the very existences of the people into it.

The state cannot create anything. Wealth is created by producers—industrial workers, management, and farmers. State insurances are a means whereby the state skims off their incomes and gives part back in services, many of which the people are better able to provide for themselves as individuals in coöperative groups.

Under the Administration's plan everyone who works would during the lifetime of his earning power, pay 4 per cent of his income up to $3600. An employee with an income of $2000 per year would pay $80. One with an income of $3600 would pay $144. Everybody working would contribute—perhaps three or four of the same family. Any employee with an income above $3600—a salaried man with an income of $10,000, a movie star with incomes of $200,000—would also pay $144.

In private medicine, completely apart from the many coöperative non-profit group insurance schemes in operation, physicians daily perform millions of dollars worth of free services. Their wealthy patients help finance the indigent. This is not a proper situation, but it is more just than the Government bill.

If the cost of the services offered in return for 4 per cent of annual income are compared with those offered by the many coöperative schemes in existence, the price is exorbitant—as well as compulsory. Mutual non-profit schemes cover, for instance, some 23,000,000 industrial workers. One of these, under which 2,300 companies are insured, provides, for $60 per year, medical care for all workers plus their dependents, in home sickness, accident, hospitalization, surgical services—up to a fee of $150—laboratory fees up to $30 per year—and physicians' care up to five visits.

I myself am in a group insurance which provides hospitalization for my whole family for $24 per year.

Coöperative medical schemes are voluntary, efficient, cheap of administration, and cheap for the participants and could be standardized on a high level. State schemes are bureaucratic, heartless, and open to dangerous collusion between assembly-line physicians and patients at the public cost—as those know who have lived under them. The novelists are the best reporters. Those who think this proposal is "progress" should read "How Green Is My Valley," "Little Man, What Now?" and "Karl and the Twentieth Century" for light.

Self-employed (farmers, for instance) are to pay 5 per cent of their incomes. On $3600 that is $180 per year, or nearly 50 cents a day!

Ordinary bouts of sickness in the average family can be dealt with. The real crises are those that require hospitalization and surgical services, and these usually occur only a few times in one's life. Even as an individual, without benefit of group insurance, one can provide for a limited amount of miscellaneous services, operation costs, and 70 days of hospitalization for as low as $17 per year—depending on age and state of health—through private insurance companies.

Barnum said a sucker is born every minute. Along with the sucker is born a politician, and nowadays a "progressive" to beat his drums for every measure that extends the power of the state, even into the most intimate parts of life.—San Francisco *Chronicle*, December 21.

What Eleanor Roosevelt Said Concerning President Truman's Health [Sickness] Insurance Message, and Wagner Bill S. 1606

Hyde Park, Nov. 23.—I have signed today an endorsement of President Truman's health message. There is only one point that seems to me not quite to coincide with our practice in other things. For instance, you pay school taxes only up to a certain percentage of your income. You pay taxes according to the size of your income. Furthermore, no matter what your income may be, you can send your children to public school, and it seems to me that the same should apply in the case of these new health services. The proposed tax is to be 4 per cent of incomes up to $3600 a year. No matter how much income we have, only that amount, apparently, is taxed for this plan; and only people with that income, or less, are expected to make use of it.

Taxes for Health

Unless the health needs of the people as a whole can be met by this tax on a portion of the national income, it would seem to me entirely fair to expect to be taxed in proportion to our income, just as we are taxed for education. In some places the school tax may be based on real estate instead of income, but at least everyone pays the same ratio to his possessions. It seems to me that those of us who have more income or more land, whichever the basis of the tax, should pay regardless of whether we use the health plan or not—on the theory that all citizens are entitled to take advantage of any plan which is for the good of the citizens in general. If they do not take advantage of it, that is their choice.

This does not seem to me to have anything whatever to do with socialized medicine; and I am particularly glad that the proposed plan recognizes the need for giving help to our medical schools, since research and education are essential to keeping up the standards of medical care. This may make it possible for young doctors to work in rural communities, where medical care has been very inadequate in the past.

Valuable Experience

Medical practice is so varied in a rural community that it probably would give invaluable experience to any

young man who was willing to put in up to five years in doing this kind of work. It is probably the most exacting kind of work that can be done, and yet it might reach for the first time sections of our country which, from the health point of view, have been almost totally neglected in the past.—San Francisco *News*, November 24.

What Chester Rowell, California Press Commentator Said Concerning President Truman's Health [Sickness] Insurance Message, and Wagner Bill S. 1606

I am venturing this morning to express some individual views on health insurance which come nearer to those of President Truman than those of some of his critics, in and out of Congress. Since my own position on the subject has been notorious for many years, this is merely saying it over again. But the statements and actions of the President and his recommendations to Congress make it an immediate issue, as well as important news.

What the President wants is Federal action, to be worked out by Congress in case it accepts the general policy. This action, he says, is not to be "State medicine," but the extension of existing systems of health "insurance," by prepaid premiums, utilizing existing mediums to distribute the costs of an otherwise unaverageable risk.

This has always been the principle of fire insurance and life insurance, and of the various forms of social insurance which have become increasingly public policy in America. Everybody finally dies. How long each individual will live is unpredictable. He may die tomorrow or he may live to be a hundred or more. But the average expectation is calculable, and is distributed by insurance. The same is true of fire risks, except that some structures never burn. The fortunate owner is the one who pays out his insurance fees and never draws for any losses. The same thing is the case with unemployment, old age, industrial accidents and illness.

The objectors to health insurance, however, on even a State scale, and even more to a Federal one, raise the slogans of "regimentation," and all the rest, and insist that, if any of the money, or even the supervision, comes from "government," it means "political" control of "medicine," both the doctor and the patient. And "bureaucracy," they say, "never lets go."

However, there are certain matters of common arithmetic, as well as the desires of groups, like labor, the returning veterans, small farmers and others, who are going to get what they want, no matter how sincere some of the opponents may be in arguing that they should not have it.

On the arithmetic side, the President points out that 4 per cent of the pay rolls or gross incomes of those under a certain modest minimum is what is now being paid for the costs, medical and otherwise, of illness. This estimate is either correct, or can be ascertained by a fact-finding commission—provided it is composed of fact-finders, competent to find the facts and interested only in finding them.

But here is other arithmetic, which I know, from considerable first-hand information, to be true of schooling, and which qualified observers insist they can prove is true of medical care and hospitals also. . . .—San Francisco *Chronicle*, November 22.

What Newspaper Editors Said Concerning President Truman's Health [Sickness] Insurance Message, and Wagner Bill S. 1606

Health Insurance

We have long supported the effort to establish a health insurance system in California. We believe a medical care program should be operated by the individual states and not by the Federal Government. We have a profound distrust of remote control by a vast Washington bureaucracy of a concern touching so intimately the lives of the citizens.

Our lack of confidence in the plan President Truman proposes is not made less by the language in which he describes it. On May 28 of this year we suggested to the California Legislature that it take careful note of Senator Wagner's then proposal of a vast Federal health insurance operation as a threat hanging over the State if it failed to install its own program. We then said that if there were no other defects immediately apparent in the Wagner scheme the language in which the New York Senator urged it would alone arouse deep suspicion.

We now find it is Wagner's sleeping plan which is revived to be brought before Congress at this moment and that in urging it President Truman has only echoed what Wagner said last spring.

The President repeats Wagner in asserting that this plan is not "socialized medicine." "Socialized medicine," he said, "means that all the doctors work for the Government." That is only Truman's, or rather, Wagner's definition. There is more than one way of tying a knot. Wagner said it would not mean "regimentation." Any compulsory rule laid on the citizens is regimentation. We could have regimentation in a State system, too; we recognize that, but it is the unfrankness of these declarations that rouse us here. To us these assurances are nothing more than attempts to soothe persons who do not like the terms "regimentation" and "socialized medicine." They should not fool anyone who can put two and two together.

Similarly unfrank semes the President's assertion that the system must be "highly decentralized in administration" though the fund "should be built up nationally." These two elements are completely incompatible. Whoever holds the purse runs the show and from the place where the money is held. Nothing run by Washington is ever decentralized. OPA is a good example; it is supposed to be decentralized with district and local administrators, but anyone who has had dealings with it knows every new question has to be referred to Washington. In other words, you can't decentralize centralization.

We agree that a health insurance program should be decentralized. In our opinion the best and only chance of a degree of decentralization lies in state-run health insurance systems. Who wants to wait on Washington to decide whether his particular kind of case is in the rule book?

We assume it is only to catch the doctors that the President spreads the molasses of "more money for all of them." We are unable to calculate how this could be on the basis of the President's statement that the requisite 4 per cent tax to raise the fund is only about what Americans now spend for sickness care.

We do not want another national bureaucracy to create another huge pressure group in Government.—San Francisco *Chronicle*, November 21.

What Union Labor's Representatives Said Concerning President Truman's Health [Sickness] Insurance Message, and Wagner Bill S. 1606

CIO Backs Truman on Health

President Truman's call for a national health program this week won full support of the national CIO, expressed by CIO President Philip Murray. Murray declared:

"The CIO lends its hearty support to the general principles set forth in President Truman's special message

proposing a 5-point national health program.

"It has long been apparent to the CIO that a national health insurance system for prepayment of the costs of medical care is a necessary next step. We have indicated our willingness to consider the participation of voluntary organizations in the insurance system, but favor the general principle of compulsory insurance as necessary to nationwide coverage."

Murray's endorsement of the Truman message to Congress contrasts sharply with the "Yes, but—" answer of the California Medical Association, which says it likes the objectives embodied, but opposes "government compulsion" and "regimentation."

"We congratulate the President on his statement with respect to the construction of hospitals and related facilities," said Murray, "and for saying that in approving state plans and individual projects and in fixing the national standards, the Federal agency should have the help of a strictly advisory body that includes both public and professional members.

"The CIO has already endorsed the Kilgore bill (S 1297) for scientific research. We are also on record as supporting the related provisions in the Wagner-Murray-Dingell bill (S 1050)."—San Francisco *Labor Herald*, November 30.

What Insurance Underwriters Said Concerning President Truman's Health [Sickness] Insurance Message, and Wagner Bill S. 1606

Expect Defeat of Plan

San Francisco A. & H. Underwriters See Truman's Proposal as Far-Reaching; Predict Rejection

The proposal by President Harry S. Truman on Monday (Nov. 19) of a five-point national health insurance program aroused vigorous comment throughout the San Francisco insurance district, but the general consensus was that the plan presented to Congress has little chance of passage.

The program, which is held to be much more far-reaching than the State health proposals under consideration in California, would provide the following:

(1) Federal aid for construction of hospitals, health centers and other facilities where they are needed.

(2) Increased use of Federal funds to expand cooperative State-Federal public health, maternal and child health service.

(3) Federal aid to support more adequate professional education and the advancement of research on the cause, prevention and cure of cancer and mental illness.

(4) A compulsory national health insurance system to assure pre-payment of medical costs under a plan which would leave patients free to choose their own doctors and hospitals.

(5) Disability insurance for protection against loss of wages because of sickness and disability.

It was by the inclusion of the latter point that observers saw in the President's proposal a plan more far-reaching and one that more seriously affects private carriers than the current suggestions for similar State legislation in California.

Optimism that the measures will either be defeated or will be so modified as to remove most of their objectionable features, was generally held among insurance executives. This was based upon the fact that the President is encountering increasing difficulty in getting many of his major proposals through Congress, and, more particularly, by the fact that only recently has Congress rejected a measure to increase the scope of the existing Social Security law.

The measures proposed by the President are reported to involve an additional payroll tax of four per cent on people whose incomes are below the $3,500 mark. Not a few A. & H. executives pointed out that at this cost almost any good risk could now secure full coverage on a non-cancellable policy for less money.—San Francisco *Underwriter's Report*, November 22.

Another Payroll Deduction?

There is no doubt that the American people—especially the people of California, where 1,500,000 citizens already are enrolled in voluntary pre-pay medical care systems—are health insurance "minded," as the phrase goes. So perhaps the fact that President Truman's plan for national compulsory health insurance would have to be financed by the heaviest paycheck cut on American workers since the withholding tax was invented may be the chief reason why the plan has met with no noticeable public enthusiasm.

A payroll levy of 4 per cent has been estimated by Washington statisticians as the minimum for carrying out the national plan. That would more than cancel out income tax relief hoped for next year! For example, a married man with two dependents, earning $3000 a year, will pay $250 in withholding taxes in 1946, including $60 for Social Security and unemployment insurance. Four per cent for compulsory health insurance would take an additional $120 from him—boosting his total tax by nearly 50 per cent!

The public has come to a rightful conclusion, from experience, that government-financed programs are always inordinately costly—what with the inevitable excessive overhead of overmanned administrative staffs.

Californians, with access to voluntary health insurance systems which are proving to be eminently satisfactory, both in cost to the enrolled individuals and families and in the caliber of medical and hospital service, have shown marked coolness toward plans of the compulsory type. None of several bills proposing them for this State even got out of committee at the last legislative session.

The President's plan seems in for hard sledding.—Salinas *Californian*, December 1.

Why Not the State?

Now President Truman has made a five-point proposal in the interest of a national health program. In a recommendation to Congress he asks for Federal aid for construction of hospitals nation-wide, for the creation of health centers and for other facilities that may be needed to carry out his proposal. Increased use of funds to expand coöperative state and Federal public health is emphasized. Also money will be needed to support more adequate professional education and the advancement of research on the cause, prevention and cure of cancer and mental illnesses. A compulsory national health insurance system appeared in the President's program but with the assurance that patients will be "free to choose their own doctors and their own hospitals." The Chief Executive foresees that in this movement there will be an increase in economic productivity in direct ratio to the improvement in the national health.

Governor Warren sought to interest the public and the Legislature in a similar movement but his outlined plan did not receive full sanction of the State nor of the Legislature. The reaction to the President's proposal will be awaited with interest.

But in the meantime the nation will not fail to note that the public debt has reached roundly the sum of $300,000,000,000. Not only that, but the cost of government is today far beyond the government's income. How shall

we finance the additional burden which the President now proposes?

And as a matter of fact, if health insurance is to find favor should it not be fathered by state authority rather than by the Federal Government? Administration will prove intricate and expensive; it certainly can be controlled more effectively with each state acting for itself than through Federal Government with headquarters in Washington and with state headquarters established in the commonwealths of the Union.

If this nation is to get back to normal it must be through a reorganization of the national government. Obviously we cannot make progress from year to year if maintenance is in excess of income, while in addition we still have that enormous debt to consider.

President Truman emphasizes that his plan would not amount to socialized medicine, that people would be free to follow their own inclination as to doctors and hospitals. That might make for support of the proposal but it does not solve the problem of finances. How can we spend more millions or billions, perhaps, in carrying out the President's program so long as we are billions in debt and with the prospect that that debt will increase rather than diminish in the postwar years? Isn't it a job for each state rather than for the nation?—Bakersfield *Californian*, November 20.

The President's Health Program

President Truman's message to Congress on a national health program presents the usual array of arguments used by the proponents of compulsory health insurance. There is the familiar insistence that it doesn't mean socialized medicine and the conventional gesture toward permitting voluntary coöperative organizations to participate "if they can contribute to the efficiency and economy of the system."

The presentation of broad generalities as to the need for more and better health and medical facilities is one thing; the translation of them into law short of socialization is another. California's recent experience with the various compulsory health insurance proposals exemplified this.

At first glance one would think that doctors who frequently find difficulty in getting their pay would welcome relief on this score. But many doctors nevertheless conscientiously oppose compulsory systems which they see as leading toward regimentation of their profession and the leveling off of the quality of service as the spur to individual incentive is dulled.

They may be wrong but thus far the record of American medicine when set against that of countries which have compulsory systems has not suffered by comparison.

There are so many different angles to the entire problem that generalities tend to oversimplify a highly complex problem. It is trite to say that no amount of money alone can buy good health. But it is true. The members of the medical profession themselves will be among the first to admit that they have not the answers to many of the problems involved in the mental and physical ailments which afflict mankind.

President Truman mentioned the Selective Service examination record but he did not analyze it from the standpoint of (1) either the lack of opportunity for proper care, or (2) whether medical care alone would have materially changed the picture. . . .

The recital of the causes of these rejections at least tends to accentuate the complexity of the problems involved in a health program. Paradoxically many of these 4-F's will be active and alive after their more healthy brethren have passed away.

The Federal Government through public health measures, through aiding in the provision of needed hospitals and medical centers and in other broad ways can undoubtedly do much toward improving health standards. To the extent that it helps voluntary systems of prepaid hospital and medical care, it will be promoting a desirable movement which from all indications can be more fully exploited than it has been.

But Congress will be well advised to consider carefully the full implication and impact of a system of taxation and the disbursement of billions of dollars under compulsory health insurance.—Los Angeles *Times*, November 21.

COMMITTEE ON HEALTH AND PUBLIC INSTRUCTION

Venereal Disease in San Francisco

Study Shows Psychiatric Facilities Must Augment Medicine for Control

Control of the city's soaring venereal disease rate cannot be effected by proper medical treatment alone. In addition, use of psychiatric facilities offered as part of a mental hygiene program is necessary.

This was the tentative conclusion yesterday of a group of venereal disease authorities and psychiatrists who have just completed an experiment in the psychiatric treatment of promiscuous girls at the San Francisco City Clinic.

The 17-month project was undertaken under joint auspices of the venereal disease division of the United States Public Health Service, the California State Department of Public Health and the San Francisco Department of Public Health.

First Experiment of Kind

The unique experiment, first of its kind in the United States, was undertaken at a cost of $18,000, to determine the personality and environmental factors motivating the promiscuous behavior of a group of girls; to assist them in making satisfactory psychological adjustments, thus removing the likelihood of their behavior leading to dissemination of venereal disease.

Dr. Ernest G. Lion, director of the experiment, emphasized that prostitutes were not included in the study and that promiscuous patients included married women who had indulged in extramarital relations.

365 Women Involved

An analysis was made of 365 patients, of whom 287 were classified as promiscuous and 78 as potentially so. Eighty per cent were white and the remainder chiefly Negro. Average age of the patients was 20 years, and 90 per cent of the group was referred by the city's venereal disease clinic and the rest by other medical agencies of the city and the Juvenile Court.

Dr. Lion, who was assisted by Helen M. Jambor, Hazle G. Corrigan and Dr. Catherine P. Bradwal, determined that no single factor was found in itself either denoted or excluded promiscuity.

Basic contributory factors seemed to be unsatisfactory family relationships, often marked by broken homes and unstable personal relationships. In addition, the survey disclosed, sex instruction which the patient had received usually was described as being inadequate and unscientific. Uneven development in physical, emotional and social maturity within the individual usually was noted.

Environment Big Factor

Environment factors, such as unsatisfactory living conditions, absence of community ties and the making of

casual friendships often were found to have contributed to the promiscuous behavior, the report showed.

Response of the patients to the service offered varied. No significant differences were found as to use of the psychiatric service on the basis of age. In general, the survey showed, the proportion of patients who took advantage of the service increased as the intelligence level rose.

Some Not Interested

Approximately one-sixth of the patients referred to the clinic availed themselves of intensive, prolonged treatment. An additional one-half of the patients utilized consultive service. Slightly more than one-third were not interested.

"Changes observed in patients during the course of treatment suggested they had benefited from the services given and in particular had reduced their promiscuity," the report stated.

"Only 40 per cent of the patients could be successfully followed up after six months. The number was too few for conclusive deductions, but among those successfully followed, 90 per cent were less promiscuous and 50 per cent had ceased sexual relations outside of marriage."

Medicine Not Sufficient

Although reluctant to offer any specific suggestions on the basis of the experiments, Dr. Richard A. Koch, chief of the Division of Venereal Diseases of the San Francisco Department of Health, declared that medical treatment alone for venereal diseases is not enough.

The experiment demonstrates only, he said, that this type of psychiatric aid should be part of any community's mental hygiene service that in turn is an offshoot of a public health department.

Of particular importance has been the availability of service to patients in meeting the emotional experience associated with venereal disease at a time when anxiety has been aroused by the presence of or probability of a venereal disease.

Other Centers Desired

As a result of the San Francisco experiment, Dr. J. R. Heller, Jr., chief of the United States Public Health Services Venereal Disease Division, is recommending establishment of five similar centers in various metropolitan areas.

Whether the San Francisco service will continue will depend upon Federal, State and city appropriations.

Present at a conferense held on October 3, at announcement of the experiment's conclusion were Dr. J. C. Geiger, San Francisco Public Health Director; Dr. A. Frank Brewer of the State Department of Public Health and Lawrence Arnstein, of the California Social Hygiene Association.

Botulism—Report of an Outbreak in Los Angeles

While a rare disease, botulism has come into the limelight with the increase in home canning associated with victory gardens.

Recently two cases with one death occurred in Los Angeles from home canned chile. Both individuals had merely tasted the chile before frying, and obtained enough toxin to kill one. The life of the other was undoubtedly saved by antitoxin. Six people who ate the chile after frying remained perfectly well.

Botulism has been reported from 32 different states, although most commonly from the western states: California, Washington, Colorado, Montana, New Mexico, and Wyoming. Of 1,024 cases collected by Dr. K. F. Meyer of San Francisco who has done practically all of the pioneer work in this field, there were 669 deaths, a fatality rate of 65 per cent. He has recorded forty-six different preparations of home canned vegetables, seventeen different canned meats, eight types of canned fish, and three milk preparations as causing outbreaks. Home canned string beans, asparagus, corn and spinach are the commonest sources. No outbreaks of botulism have resulted from commercially canned products since 1925.

Botulism is caused by the ingestion of an extremely potent, heat labile, exotoxin, which is produced under anaerobic conditions by the spore forming bacteria Clostridium botulinum. This organism occurs in the soil. Unless the spore is killed by pressure cooking there is danger of anaerobic growth in the can or jar and toxin formation. If thoroughly cooked for 15 minutes the toxin is destroyed. If merely tasted before cooking, enough toxin may be ingested to cause death. Clostridium botulinum does not develop in an acid media (P.H. below 4.5) and no toxin is developed. The addition of other products, such as sodium bicarbinate may, however, raise the p.h. of "acid food" to a point where toxin will develop. When fed to chickens toxin causes characteristic "limber neck" and death.

Clinically, botulism is characterized by delayed onset (18 to 38 hrs.), muscular weakness, disturbed vision and swallowing. Pain and gastro-intestinal symptoms are infrequent.

Motor Vehicle Traffic Accident Deaths in California and the Nation

How safe you are on the streets and highways of California depends upon where you are. But wherever you are, you are less safe than if you were in many other parts of the United States.

The national death rate for motor vehicle accidents in 1944 was 18.3 per 100,000 population. The California rate was 29.0.

In the 580 cities which report motor vehicle traffic deaths to the National Safety Council, the death rate per 100,000 population was 11.2. Seventeen California cities are included among reporting cities. Their rates for motor vehicle traffic accidents are given below:

City	*Death rate per 100,000*
Berkeley	18.0
Beverly Hills	13.4
Glendale	8.8
Long Beach	18.9
Los Angeles	21.0
Oakland	24.8
Palo Alto	11.8
Pasadena	6.7
Richmond	33.1
Riverside	25.0
Sacramento	9.5
San Bernardino	15.6
San Diego	19.2
San Francisco	15.6
San Jose	25.3
Santa Monica	30.4
Ventura	45.1

Throughout the nation, nearly 60 per cent of all motor vehicle deaths occur in rural areas and in cities of less than 2,500 population. The next highest proportion of deaths (23 per cent) occurs in cities with more than 100,000 population.

In 57 per cent of fatal accidents occurring in 27 States, drivers were reported in violation of the law. Chief violations were: Exceeding speed limit, 16 per cent; on wrong side of road, 7; did not have right of way, 6; under influence of alcohol, 5.

Thirty-three per cent of pedestrians who were killed in motor vehicle accidents were struck down when crossing between intersections, 23 per cent while crossing at intersections, and 18 per cent while walking in the roadway.

All statistics are from *Accident Facts*, 1945 Edition, National Safety Council.

Rheumatic Fever in Los Angeles

Rheumatic fever accounts for 90 per cent of the heart disease that occurs under 30 years of age. It may be transmitted from person to person and frequently occurs in epidemic form in schools and military organizations. Multiple cases may occur in families, as in tuberculosis. culosis.

As in tuberculosis, the incidence is higher in lower income groups living under substandard and crowded conditions. A study of the geographic distribution of rheumatic fever in Los Angeles for 1944 shows the highest incidence in the east Los Angeles area. It is interesting that this same area also has the highest incidence of tuberculosis and diptheria in the city. The next highest incidence of rheumatic fever occurs in the southeast Los Angeles area which also has the second highest incidence of diphtheria and the third highest (there are ten study areas) incidence of tuberculosis.

On the other hand, the Hollywood area which has the lowest incidence of rheumatic fever has also the lowest incidence of diphtheria and the fourth lowest incidence of tuberculosis and Venice area with the next lowest incidence of rheumatic fever has the lowest incidence of tuberculosis and the next lowest incidence of diphtheria.

Worthwhile strides have been made in the control of rheumatic fever. If children can be found in the pre or early heart damage stage steps may be taken to prevent heart damage. Such children should be watched very carefully, however. Protection from upper respiratory infection by various degrees of isolation and chemical (sulf) prophylaxis of these susceptible children have shown promise.

All rheumatic fever cases should be reported to your health department immediately. The Los Angeles Heart Association, the Heart Division of the Los Angeles Tuberculosis and Health Association, and the State Crippled Children's Division are ready and anxious to be of help in preventing permanent heart damage.

Science Credits

Casting up its accounts at the end of the year, science finds it does not lack important setoffs for its atomic bomb. If 1945 produced this menace to mankind it also carried far benefits to humanity in advances in the treatment and prevention of disease.

Dr. Robert C. Miller of the California Academy of Sciences lists a few of the outstanding medical discoveries. One we have heard very little about, promin, a drug which has produced great improvement in the treatment of leprosy. Another is a cure for the dread cholera which is said to be 100 per cent effective. BAL, another recent discovery, is a new remedy for arsenic poisoning.

The public has heard a great deal about DDT, but, naturally enough, with its own gardens in mind, thinks about it chiefly as a destroyer of insect pests. It is that, but more important is the fact that it is an effective exterminator of some of the insects that are the worst carriers of diseases. DDT has proved to be the most capable agent ever found to combat typhus fever, malaria and sleeping sickness, all transmitted to human beings by insects. On some of the once fever-ridden South Pacific isles a malaria mosquito is now said to be a great novelty. It was DDT that stopped the threatened typhus epidemic at Naples and it is DDT that is now being used to make sleeping sickness districts in Africa habitable.

It was a military purpose that speeded nuclear fission to make possible the atomic bomb; it was a military object that gave medical science more progress in the few war years than it might otherwise have made in a generation. BAL was discovered in work on poison gases; the cholera cure was a by-product of studies of blood plasma.

COMMITTEE ON PUBLIC RELATIONS

A.M.A. Council on Medical Service and Public Relations—American Medical Association

The wide range of subjects covered by the first Public Relations Conference of the Council on Medical Service and Public Relations is shown by the following summary of recommendations.

Round Table on Legislation—Moderator, James R. McVay, M.D. The opening and development of the Washington Office was highly commended and its further expansion and continued financial support recommended.

It was further recommended that each state association be invited to appoint a special national legisltaive committee to work with the Council and the Washington Office. The Council was requested to bring a resolution along these lines and in accordance with the suggestions made to the coming meeting of the House of Delegates.

* * *

Round Table on the E.M.I.C. Program—Moderator, Thomas A. McGoldrick, M.D. The Conference unanimously disapproved the present E.M.I.C. bill, S. 1318, and called upon the members of the entire medical profession for personal disapproval. It was recommended that any program of the Children's Bureau be administered through the state medical associations; that the present Advisory and Steering Committee to the Children's Bureau be replaced with a committee consisting of one representative from each state medical association and such other medical organizations as have direct interest in the functions of the Bureau; that the Children's Bureau be transferred to the Federal Security Agency until such time as all health and medical activities are segregated into a single department; that state medical associations have some say in the expenditure of any funds appropriated by Congress for health and medical services; that the American Medical Association take action to bring these resolutions to the proper authorities for action and that every Congressman be personally appraised of the defects and dangers of this bill.

* * *

Round Table on the Public Relations Job—Moderator, John H. Fitzgibbon, M.D. No specific resolutions or recommendations were presented. The round table agreed on the importance of establishing two types of public relations separately, one within the medical profession itself and one concerned with the relations of medicine to the public.

Public relations within the profession was emphasized as a necessary preliminary to public relations with the public and the A.M.A. was urged to intensify this program. It was pointed out that this was particularly true of current medical economic problems and new techniques for public relations were discussed at some length.

Among the techniques and proposals discussed for public relations to the public were: "The Committee on Community Health," "Radio," "The Press," "Motion Pictures," "Special Exhibits." The programs of various state medical societies were presented and discussed. In concluding their report, the committee urged that the Board of Trustees of the American Medical Association give special consideration to the extent to which such public relations services be utilized by the Association. The committee called attention to the fact that it is now generally recognized that the relations of the individual physician to the individual patient are on a substantially sound basis and that antagonism of the public toward organized medicine seems to rest on a basis that the opponents of organized medicine offer and promise complete medical care on what seems to be a relatively small outlay whereas the American medical profession has not yet come forth with a specific program on a nation-wide basis. In concluding the committee pointed out that the task of public relations will be rendered much easier if those concerned could be put in possession of a constructive program which they could promote to the public rather than in a position of a continuous defense of programs coming from other sources.

* * *

Round Table on the Placement of Medical Officers—Moderator, Harold C. Lueth, M.D. The committee recommended that the A.M.A. request the Procurement and Assignment Service and the Navy, Army and the Public Health Service to ascertain at the earliest practicable time the future policy relating to the deferment of medical officers to serve in residences.

With respect to the G. I. Bill of Rights it was recommended that all discharged medical officers be given terminal leave pay at the termination of their active duty and prior to the expiration of such accrued leave as they may have thus enabling them to immediately participate in the benefits of the bill.

It was also recommended that the Bureau of Information of the A.M.A. be established in permanent form to provide information on each physician in the United States, possible locations for physicians, and of physicians who desire change in location.

It was urged that each state establish an information service to collect facts and information so as to be in the position to supply data concerning areas in need of physicians and concerning the complete picture of medical facilities in operation and needed within the state.

It was recommended that the Council on Medical Education and Hospitals be urged to set up at once a method for the more prompt approval of hospitals for residencies and consider the advisability of providing some temporary approval system.

* * *

Round Table on Prepayment Medical Care—Moderator, A. W. Adson, M.D. Voicing the opinion that six per cent of the total population covered by voluntary prepayment plans is insufficient and the hope that a nation-wide plan would assist materially in raising this percentage, the committee recommended a meeting of representatives from the forty-eight states to be held November 30 and December 1 in Chicago. At this meeting the representatives of the states were urged to go thoroughly into the problem and it was recommended that the delegates to this meeting consider the formation of a nucleus for the development of a nation-wide plan in correlation with the plans now operating and to assist those states which do not have plans. Doctor Adson was authorized to act as chairman and call the proposed meeting.

* * *

Round Table on Rural Health—Moderator, F. S. Crockett, M.D. The round table on rural health did not present recommendations or resolutions. It was the considered opinion of this group that the work on rural medical service is so new that no fixed opinions could be given as to what must be done or as to the needs. The coöperation of all of the states and more active interest in the problem was urged.

COMMITTEE ON MEDICAL EDUCATION AND MEDICAL INSTITUTIONS

Man-Made Cosmic Rays

4,000-ton Cyclotron at University of California Campus in Berkeley May Permit Their Artificial Production, the Obtaining of Atomic Energy from Cheaper Sources and the Discovery of Many New Elements

Breaking the war-imposed silence which has shrouded atomic research since 1941, Prof. Ernest O. Lawrence, University of California physicist and Nobel prize winner, disclosed that work has been commenced on a $1,450,000 project which will provide the university with a gigantic 4,000-ton cyclotron, three times larger than any now available, for use in peacetime atomic exploration. The machine, which will be completed next summer, may for the first time permit the artificial production of cosmic rays, the obtaining of atomic energy from cheaper sources than uranium, and the discovery of many new elements, Dr. Lawrence predicted.

The youthful-appearing scientist was frankly elated as he announced that military authorities had flashed a green light to "go ahead with unhampered peacetime atomic research."

"Certain security restrictions will continue in effect," he said, "but I believe we shall be able fully to publicize our activities in the very near future."

For the present, though, Dr. Lawrence added, American researchers must confine their experiments to this country, not exchanging findings or data with scientists of other nations.

"I find no fault with these security restrictions," he emphasized.

Construction of the 4,000-ton cyclotron began in 1940, Dr. Lawrence continued, but was halted two years later to permit use of the equipment already installed for production of the first sizable portions of U-235 pure enough for use in the atomic bomb.

When completed the giant atom-smasher will be five times more powerful than the present 60-inch Berkeley cyclotron, which was also a top-secret wartime project when it was employed in research on the bombs that leveled Nagasaki and Hiroshima. The new 184-inch cyclotron was originally designed to produce deuterons (heavy hydrogen nuclei) of 100,000,000 electron volts, Dr. Lawrence said, but knowledge gained in war research has resulted in plan changes which will permit physicists to accelerate deuterons to energies of 200,000,000 electron volts and alpha particles (helium nuclei) and protons (hydrogen nuclei) to energies of 400,000,000 electron volts. However, he added, the machine, which includes a 3,700-ton electromagnet—the largest known to exist—will initially be capable of producing deuterons with energies of 60,000,000 electron volts and alpha particles of 120,000,000 electron volts. These are merely words to the average layman but to Dr. Lawrence and his associates they spell the opening of broad new fields for research from which radical changes affecting all human life may develop.

"The enermous energies which will be achieved will make practical the heretofore impossible testing of many theories of atomic structure," Dr. Lawrence stated. "Nobody knows what the ultimate results will be, but this laboratory will be open 24 hours a day, seven days a week, constantly pressing the quest for new knowledge."

Operation of the giant atom smasher, he declared, will bring science into a "new realm of the atom."

"We shall be breaking through a new barrier," he said. "What we find beyond should be as exciting as what we have found since the 1930's, when we began breaking into the nucleus of the atom. That we shall learn more of the elementary forces of nature is almost certain. The opportunity will exist for mankind to gain greater control of our environment through the use of this information."

The research machine will provide new tools for research in biology, medicine, chemistry and agriculture, Dr. Lawrence pointed out.

Prof. Wendell M. Latimer, Dean of the University of California college of chemistry, and Prof. Glenn T. Seaborg, one of the discoverers of plutonium, said they hoped it will be immediately possible to use the device to produce new trans-uranic elements, four of which have been obtained by combined processes of bombardment in the 60-inch cyclotron and chemical separation.

The promised artificial production of cosmic rays is significant, Dr. Lawrence pointed out, because scientists presently pin their hopes of eventually understanding the nature of matter on these rays.

Cosmic rays, he added, are believed to result from explosions in nature releasing atomic energy. Laboratory production of them will permit a constant study, he explained, as contrasted with the present limitation which permits study of chance cosmic rays only as they pass through instruments such as cloud chambers.

"Such fundamental research is necessary if we are to understand the forces with which we are working." Dr. Lawrence declared. "While we know how to produce the atomic energy in a bomb, we know very little about the elementary nuclear forces involved in the release of atomic energy."—*Science News Letter,* December 22, 1945.

MISCELLANY

Under this department are ordinarily grouped: News Items; Letters; Special Articles; Twenty-Five Years Ago column; California Board of Medical Examiners; and other columns as occasion may warrant. Items for News column must be furnished by the fifteenth of the preceding month. For Book Reviews, see index on the front cover, under Miscellany.

NEWS

Coming Meetings†

California Medical Association. Session will convene in Los Angeles. Headquarters, Hotel Biltmore, 5th and Olive Sts. Dates of meetings: Tuesday, May 7-Friday, May 10, 1946.

American Medical Association. The next annual session of the American Medical Association will be held in San Francisco, July 1-5, 1946. (Monday-Friday, inclusive.)

The Platform of the American Medical Association

The American Medical Association advocates:

1. *The establishment of an agency of Federal Government under which shall be coördinated and administered all medical and health functions of the Federal Government, exclusive of these of the Army and Navy.*

2. *The allotment of such funds as the Congress may make available to any state in actual need for the prevention of disease, the promotion of health, and the care of the sick or proof of such need.*

3. *The principle that the care of the public health and the provision of medical service to the sick is primarily a local responsibility.*

4. *The development of a mechanism for meeting the needs of expansion of preventive medical services with local determination of needs and local control of administration.*

5. *The extension of medical care for the indigent and the medically indigent with local determination of needs and local control of administration.*

5. *The extension of medical care for the indigent and the medically indigent with local determination of needs and local control of administration.*

6. *In the extension of medical services to all the people, the utmost utilization of qualified medical and hospital facilities already established.*

7. *The continued development of the private practice of medicine, subject to such changes as may be necessary to maintain the quality of medical service and to increase their availability.*

8. *Expansion of public health and medical services consistent with the American system of democracy.*

(Ed. Note.—Interpretative comments on principles included in the A.M.A. platform appear in CALIFORNIA AND WESTERN MEDICINE for December, 1939, on pages 394-395. For subsequent comment, see *J.A.M.A.*, June 24, 1944, pp. 574-576. Also, August, 1945, CALIFORNIA AND WESTERN MEDICINE, pp. 61-62.) On p. 61 (C.M.A.) and p. 62 (A.M.A.)

Medical Broadcasts*

The Los Angeles County Medical Association:

In January, KFAC will present broadcasts on Saturdays at 10:15 a.m.: January 5, 12, 19 and 26.

The Saturday broadcasts of KFI are given at 9:45 a.m., under the title, "The Road to Health."

"Doctors at War":

For radio broadcasts of "Doctors at War" by the American Medical Association, see *J.A.M.A.*

Pharmacological Items of Potential Interest to Clinicians*:

1. *Interesting Books:* E. S. Russell's *Directiveness of Organic Activities* sounds good (Cambridge Press, 204 pp., $2, 1945). So does E. Huntington's *Mainsprings of Civilization* (Wiley, N. Y., 1945, 672 pp., $4.75). Ditto for N. Cousins' *Modern Man Is Obsolete* (Viking, N. Y., 1945, 59 pp., $1). Also ditto for A. L. Kroeber's *Configurations of Culture Growth* (Univ. California, Berkeley, 1945, 832 pp., $7.50). And B. D. Panth's *Consider the Calendar* (Columbia, N. Y., 1945, $1.25). Also A. H. Leighton's *The Governing of Men* (Princeton Press, 1945, 420 pp., $3.75). Be sure to read C. L. Becker's Cook Lectures at Michigan: *Freedom and Responsibility in the American Way of Life* is a pertinent last testament applicable to us all (Knopf, N. Y., 1945, xlii and 121 pp., $2.50). R. B. Perry's *One World in the Making* offers worthy challenge (Current Books, N. Y., $5, 275 pp., $3). B. Russell pot-boils vigorously in *A History of Western Philosophy* (Simon Schuster, N. Y., 1945, 895 pp., $5). I. S. Kleiner's *Human Biochemistry* is welcomely concise (Mosby, St. Louis, 1945, 573 pp., $6). H. H. deJong discusses *Experimental Catatonia: A General Reaction-Form of the Central Nervous System* (Wms. & Wilkins, Balt., 1945, 225 pp., $4). Wms. & Wilkins also offer W. J. Hamilton, J. D. Boyd and H. W. Mossman's *Human Embryology: Prenatal Development of Form and Function* (Balt., 1945, 366 pp., $7). L. E. Hinsie psychosomaticizes in *The Person in the Body* (Norton, N. Y., 1945, 263 pp., $2.75). J. G. Horsfall's *Fungicides and Their Action* should be useful (Chronica Botanica, Waltham, 1945, 239 pp., $5). Important is J. Felsen's *Dysentery, Colitis and Enteritis* (Saunders, Phila. 5, 1945, 618 p., $6). Surgeons and obstetricians should welcome I. Chavez's *Enfermedades del corazon: Cirugia y embarazo* (Colegio nacional, Mexico, D. F., 1945, 182 p.). Appropriate to the Roentgen centennial and to x-ray semi-centennial is O. Glasser's *Dr. W. C. Roentgen* (Thomas, Springfield, 1945, $4.50). C. C. Thomas also issues J. Adriani's *Chemistry of Anesthesia* (Springfield, 1945, $7). Watch for C. C. Thomas's *American Lecture Series.* Worthy text is E. Altenburg's *Genetics* (Holt, N. Y., 1945, 452 p., $3.25). F. C. Waite well tells *The Story of a Country Medical College: A History of the Clinical School of Medicine, Woodstock, Vermont, 1827-1856* (Vermont His. Soc., Montpelier, 1945, 213 p., $4.50). O. A. Bogomolets' *Influence of ACS on Healing of Fractures* offers English summaries, as do most current Russian medical books (Kiev, Acad. Sci. UK SSSR, 1944, 195 p.). Provocative is G. K. Khrushchov's *Role of Leucocytes in Reparative Processes of Tissues* (Moscow Academy, 1945, 116 p). Finally ready for distribution is *The Manual of the M. D. Anderson Hospital for Cancer Research,* and it's well done (Houston, 1945, 201 pp.). D. Guthrie offers a short *History of Medicine* (Nelson, London, 1945, 448 p., 30s).

2. *Antibiotics:* Sir Howard (Nobelate) Florey's Lister Lecture to Royal College of Surgeons on Oct. 11 well reviews history of antibiotics (*Lancet*, 2:503, Oct. 20. 1945). E. E. Hays and large St. Louis Co. confirm C.

† In the front advertising section of *The Journal of the American Medical Association*, various rosters of national officers and organizations appear each week, each list being printed about every fourth week. In CALIFORNIA AND WESTERN MEDICINE, some rosters appear in every second or third issue.

* County societies giving medical broadcasts are requested to send information as soon as arranged.

* These items submitted by Dr. Chauncey D. Leake, formerly director of the University of California Pharmacologic Laboratory, now dean of the University of Texas Medical School, Galveston, Texas.

Bouchard's observation of antibiotics (Compt. rend. Acad. 108:713, 1889), from Pseudomonas aeruginosa (B. pyocyaneus) and obtain them in crystalline, potent, and non-toxic form (*J. Biol. Chem.*, 159:725, 1945). Merck's N. G. Brink & Co. offer interesting data on chemical relations of streptomycin (*Science* 102:506, Nov. 16, 1945).

3. *Interestings:* J. Barcroft introduces symposium report on iodinated proteins (*J. Endocrin* 4:219-370, 1945). E. J. Carey & Co. continue studies on nerve endings, reporting traumatic shock effects (*Amer. J. Path.*, 21:935, 72 plates, 1945). E. Shorr & Co. report on vascular agents in shock (*Science* 102:489-498, Nov. 16, 1945). M. Spiegel-Adolf & Co. suggest breakdown of nuclear substances from electric convulsions (*J. Neuropath* 4:277, 1945). E. S. deLustig and E. Montnori find cardioregulatory agent in embryonic myocardium similar to that localized in nodal tissue of adult heart (*Rev. Soc. Argentina Biol.*, 12:187-201, 1945). R. N. Lyons indicates vitamine K may be functional part of thrombin molecule (*Austral. J. Exp. Biol. Med. Sci.*, 23:131, 1945). T. & J. Gillman describe liver aspiration biopsy technique (*S. Afr. J. Med. Sci.*, 10:53, 1945). A. S. Wiener offers theory and nomenclature of Hr blood factors (*Science*, 102:479, Nov. 9, 1945). J. H. Gaddum wisely discusses lognormal distributions (*Nature*, 156:463, Oct. 20, 1945). J. F. Danielli well notes E. K. Riedeal's Liversidge Lecture on biological significance of reactions at interfaces (*Ibid* 468), E. J. Conway & Co. (Dublin), offer new theory of gastric HCl formation (*Ibid* 477). G. E. Glock finds thiourea cmpds. produce adrenal cortex deficiency (*Ibid* 508, Oct. 27, 1945). Just arrived is E. A. Pequeno's remarkable auto-observation of 5 years experimental infection with treponema carateum, causing "pinto" (*An Inst. Invest. Cient Univ. Nuevo Leon, Monterrey*, 1:17-72, 1944). J. T. Chesterman and W. J. Sheehan show statistically significant effect of morphine in preventing postoperative ileus (B. M. J., 2:528, Oct. 20, 1945). Our own E. L. Porter and A. N. Taylor discuss facilitation of flexion reflex in relation to causalgia (*J. Neurophysiol.*, 8:289, 1945) and our R. F. Blount shows interrelationship of parts of hypophysis in development (*J. Exp. Zool.*, 100:79, 1945).

Plasma for Civilians.—Blood plasma—the substance that saved thousands of lives on the battlefields—soon will be available without cost to civilians who need it.

The Red Cross, announcing this on December 27, said it would distribute 1,250,000 units of plasma which had been declared surplus by the Army and Navy. This was estimated to be enough to meet civilian needs for two years.

A three months' supply will make up the initial shipment to health departments in each state. The departments, in turn, will distribute it to hospitals, health agencies and physicians.

The Red Cross announcement said:

"As envisaged under present plans, every acceptable hospital in every community will have a supply of plasma on hand, ready for instant use in the treatment of any patient without charge for the product. Every physician licensed by the State to practice medicine and surgery may also keep a small supply for emergency use."

Red Cross reserves, which will be tapped as necessary to replenish state supplies, will be stored in warehouses at New York, Alexandria, Va., Atlanta, St. Louis, and San Francisco.

In addition to the plasma for civilians, a five-year supply will be turned over to the Veterans' Administration

Red Cross officials estimated the 1,250,000 units represented approximately 2,000,000 donations.

A.M.A. Bureau of Health Education.—The American Medical Association and the National Broadcasting Company will resume network broadcasts of the dramatized health program which has been on the air consecutively for ten years.

This eleventh season the series will be entitled "Doctors at Home." It will be a serial dramatic story dealing with a fictitious but typical American doctor returned from military service to care for his patients, reëstablish his community contacts and service his people in curative and preventive medicine.

Effects of Salt in the Diet on High Blood Pressure.—A clearer understanding of high blood pressure may result from preliminary rat experiments at the University of California by Dr. David M. Greenberg, professor of biochemistry, and Elizabeth M. Cuthbertson, medical student.

The experiments clear up to a degree the understanding of the effects of salt in the diet on high blood pressure. It has been known that a diet high in salt content is deleterious in cases of high blood pressure due to kidney disease. Until now the cause for the damage has been attributed to high intake of sodium, which is combined with chlorine as sodium chloride to make table salt.

The scientists' experiments indicate the damage may be done by chloride rather than sodium.

Rats deficient in chloride were found to utilize their food inefficiently and gained less weight per unit of food. It was found that the chloride-deficient rats have an increased amount of chloride in the heart, which indicates the deficiency causes an overworking of the heart Deficiency of chloride was also shown to produce kidney damage.

The experiments were conducted with artificially radioactive elements produced in the atom-smashing cyclotron.

Journal of the History of Medicine.—The first number of the new *Journal of the History of Medicine and Allied Sciences*, to be published quarterly by Henry Schuman, will make its appearance in January.

The *Journal* makes its debut under the editorial guidance of a group of scholars in the field of medical history.

The Consulting Editors are prominent historians representing major centers of medical history throughout the United States, Canada, Latin America and Europe. The global representation of the editorial boards makes this publication the world's sole medical journal of international outlook.

A profession which still acknowledges the importance of the historical approach each time it writes or speaks of the *case history*, must also admit that sound historical knowledge of the medical past lays the foundations for better understanding of daily tasks. Besides being of practical use to the physician, the history of medicine should be an important cultural element in the training of every physician. It is an integral part of medical culture and its preservation is vital.

The policy of the *Journal* is to deal in a broad and varied manner with the field of medical history. In keeping with that policy, the Editors have invited contributions on all aspects of the history of medicine, as well as public health, dentistry, nursing, pharmacy, veterinary medicine and the various sciences that impinge on medicine.

Oregon Academy of Ophthalmology and Otolaryngology.—The Sixth Annual Spring Post Graduate Course in Ophthalmology and Otolaryngology will be held in Portland, April 15-20, 1946. Another program has

been arranged by the Oregon Academy and the University of Oregon Medical School. We are particularly fortunate in having two outstanding men in their respective fields as guest speakers: Dr. Algernon B. Reese, Professor of Ophthalmology at Columbia University, New York City, and Dr. Gabriel Tucker, Professor of Bronchoscopy and Laryngology at University of Pennsylvania Graduate School, Philadelphia.

There will also be lectures, clinical demonstrations and ward rounds.

Preliminary programs will be out about February 15th and you may secure yours, and further information, from Dr. Harold M. U'ren, Secretary 624 Medical Arts Bldg., Portland 5, Oregon.

Clinic on Rheumatic Heart Disease.—A clinical demonstration of rheumatic heart disease was conducted during the week of November 22, for California physicians by members of the department of pediatrics of the Medical School of the University of California.

Dr. Peter Cohen, lecturer in pediatrics, Dr. Mary B. Olney and Dr. Alice Potter, assistant clinical professors of pediatrics, in coöperation with Dr. Helen Johnson, of the State Health Department, arranged the clinic in the University Hospital and discussed the cases from the outpatient department of the children's heart clinic of the University and the Crippled Children's division of the State Health Department.

More than 200 physicians visited the clinic, one of the aims of which was to emphasize the need for early diagnosis and prompt treatment of rheumatic fever. Patients with different phases of rheumatic heart disease were placed in separate cubicles so that the physicians could examine them. Charts, cardiograms, and chest x-rays showing the heart shadow were prepared for each, and heart beats were magnified with electronic equipment. Rheumatic fever is one of the leading causes of death in childhood and is also responsible for much adult disability, the pediatricians say.

Psychiatrists Organize to Meet National Emergency.—The two leading national organizations in the field of psychiatry have united to help meet the critical situation in which the country finds itself as a result of psychiatric problems arising out of the war. In the field of psychiatry, which has always been short of well-trained personnel, there are literally thousands of places where psychiatrists are needed. There also are thousands of medical men who had some experince in psychiatry during the war, and are now seeking training opportunities.

As an initial step in bringing the psychiatrically trained and psychiatrically minded medical men together with the opportunities, the American Psychiatric Association, the oldest specialty society in America, founded more than one hundred years ago, has joined forces with the National Committee for Mental Hygiene, the pioneer organization in the field of mental health, which was founded in 1909.

Inquiries should be addressed to Captain Forrest M. Harrison (MC) USN, National Committee for Mental Hygiene, 1790 Broadway, New York City, 19.

Reginald Knight Smith Lecture.—Mount Zion Hospital, San Francisco, is presenting its second annual Reginald Knight Smith Lecture on Thursday, January 24, 1946. This lecture is presented in memory of Dr. Reginald Knight Smith who served as Chief of the Division of Obstetrics from 1909-1937 and in recognition of his outstanding medical services to the community.

Each year a prominent speaker of national medical reputation is invited to be the guest speaker on a subject of interest to the general medical profession preferably concerned with the newer developments in medicine. This year Dr. Max Pinner has been invited to present this lecture. The subject this year is "Modern Trends in the Treatment of Pulmonary Tuberculosis." Dr. Pinner is the editor of the *American Review of Tuberculosis*. He has been chief of the division of pulmonary diseases of Montefiore Hospital, New York from 1938-1945. Dr. Pinner is an outstanding authority on the subject of tuberculosis and has published approximately one hundred papers relating to pathological, bacteriological, immuniological as well as clinical aspects of tuberculosis. He was a contributor to Alexander's "Collapse-Therapy of Tuberculosis." This year Charles C. Thomas published his book entitled, "Pulmonary Tuberculosis in the Adult." In addition to holding the title of clinical professor of medicine, College of Physicians and Surgeons Columbia University from 1939-1945, he has also held important positions at the University of Illinois, as pathologist to the Herman Keefer Hospital, Detroit, assistant director in charge of laboratories and research at the Desert Sanitarium, Tucson, Arizona, and pathologist at the New York State Tuberculosis Hospitals. He is a fellow of the American College of Physicians, New York Academy of Medicine, American Trudeau Society, American Association for Thoracic Surgery.

Thirty Topics Await Special Session of California Legislature.—Governor Earl Warren disclosed on December 27 his call for the January 7 special reconversion session of the Legislature will include at least thirty different subjects.

Eight to ten items, he said, would throw "wide open" such highly controversial subjects as specific allocation of the $90,000,000 fund for state aid to local postwar public building projects. Veterans' housing, child care centers, full employment, and legislative aid for development of private and commercial aviation also are at the top of the list.

Besides the $90,000,000 employment and construction fund, Governor Warren revealed the state's entire postwar building programs, for which an additional $145,000,000 has been earmarked, will be up for consideration at the special session.

University of California Professor Comments on Atom.—The Moscow Declaration on atomic bomb control is a "very good beginning" to international control of atomic research, Dr. J. Robert Oppenheimer, University of California professor and former director of the Los Alamos, N. M., project which assembled and tested the atomic bomb, said in Berkeley, on December 31.

"Atomic control can be handled only as an international problem," Dr. Oppenheimer said, "While international inspection of atomic search is not practical now, it may become so if all nations will agree to conduct their research openly."

In no country to which people have reasonable access would it be possible to conduct secret nuclear research, the young scientist declared. . . .

Dr. Oppenheimer now is teaching theoretical nuclear physics at California Institute of Technology and is spending the holidays in Berkeley. He plans to return to Cal Tech, where he will teach graduate students and "learn more about the nature of matter."

Mississippi Valley Medical Society 1946 Essay Contest.—The Mississippi Valley Medical Society is resuming its annual Essay Contest which has not been

held during the war. In 1946 it offers a cash prize of $100.00, a gold medal, and a certificate of award for the best unpublished essay on any subject of general medical interest (including medical economics) and practical value to the general practitioner of medicine. Certificates of merit may also be granted to the physicians whose essays are rated second and third best. Contestants must be members of the American Medical Association who are residents of the United States. The winner will be invited to present his contribution before the next annual meeting of the Mississippi Valley Medical Society to be held at St. Louis, Mo., September 25, 26, 27, 1946, the Society reserving the exclusive right to first publish the essay in its official publication—the *Mississippi Valley Medical Journal* (incorporating the *Radiologic Review*). All contributions shall not exceed 5,000 words, be typewritten in English in manuscript form, submitted in five copies and must be received not later than May 1, 1946.

Further details may be secured from Harold Swanberg, M.D., Secretary, Mississippi Valley Medical Society, 209-224 W. C. U. Building, Quincy, Illinois.

U. C. Dean Returns From Medical Meeting.—Most U. S. medical schools will probably abandon the present wartime accelerated program of study, said Dr. Francis S. Smyth, dean of the University of California Medical School, on his return from a recent trip in the East.

Dr. Smyth attended a meeting of the Association of Medical Colleges at Pittsburgh, Pa., which cast a solid vote against the accelerated program.

Red Cross Names Health Services Advisory Board.—Basil O'Connor, on December 3, announced appointment of an Advisory Board on Health Services to coördinate activities of the American Red Cross in the health field. Mr. O'Connor, national Red Cross chairman, named as board chairman Lewis H. Weed, M.D., of Baltimore. Dr. Weed also is chairman of the medical sciences division of the National Research Council; and director, School of Medicine, Johns Hopkins University.

The committee consists of 109 men and women from 25 states and the District of Columbia, representing every specialty in the field of health. Not only physicians were appointed, but also nurses, dentists, health educators, medical and psychiatric social workers, hospital administrators, medical publicists, nutritionists, pediatricians, public health administrators, and sanitary engineers.

Three members of the advisory board will serve as general vice chairmen. They are: Roger I. Lee, M.D., Boston, Mass., John D. Lyttle, M.D., Los Angeles, Calif., and John Romano, M.D., Cincinnati, Ohio.

Mr. O'Connor said that the first meeting of the Board's executive committee will be held in Washington, December 15. The entire board will meet at least once a year.

The American College of Physicians.—The American College of Physicians will resume its annual meetings in 1946 and has now definitely chosen Philadelphia, May 13-17, inclusive. Headquarters will be at the Philadelphia Municipal Auditorium, 34th Street below Spruce. The meeting will be conducted under the presidency of Dr. Ernest E. Irons, Chicago, Illinois, and the general chairmanship of Dr. George Morris Piersol, Philadelphia, Pennsylvania.

State Psychiatry Needs Cited.—Treatment and prevention of brain disorders in California will be greatly aided by adoption of the proposed reorganization of the State Department of Institutions, says Dr. Karl M. Bowman, professor of psychiatry in the University of California Medical School and medical superintendent of the Langley Porter Clinic.

The proposed reorganization calls for an increased budget to provide for more psychiatrists, nurses, occupational therapists, physical therapists, psychiatric social workers and attendants. It also asks for the construction and setting up of four mental hygiene clinics at Los Angeles, and calls for a postwar building program. The State Legislature has already tentatively allocated $40 million for buildings.

Dr. Bowman pointed out that there is already an overcrowding in California mental disease hospitals of 17.1 per cent, and that it is estimated there will be an increase of 7,000 mentally ill and mental defectives in state institutions by 1948.

Dr. Bowman said that the reason for the increase in mentally ill probably is the result of more persons living to be 60 or more years of age, and the incidence of mental diseases is much higher in such age groups.

American Board of Ophthalmology.—Due to transportation difficulties the examination of the Board, originally scheduled for Los Angeles, January 28th to 31st has been changed to San Francisco, June 22nd to 25th, inclusive, 1946.

Mass X-Ray Program.—The California Tuberculosis and Health Association and the 61 local tuberculosis associations have pioneered in the use of the x-ray for mass case finding surveys.

The truck mounted unit of the State association travels continuously from county to county to provide free x-ray service. During the first ten months in 1945, 54,446 films were taken by this unit. Another unit lent to the association temporarily by the U. S. Public Health Association took 20,966 films during the time it was available.

Local tuberculosis associations in Alameda, San Francisco, Fresno, Santa Clara, San Mateo, Santa Cruz, Los Angeles and San Bernardino Counties have purchased their own x-ray units and have taken thousands of films during the year. Several other associations, including those in Kern, Stanislaus and Merced counties, have x-ray units on order.

The percentage of films "suspicious" of tuberculosis has varied according to the age group and the population characteristics of the various communities. In adult groups, this percentage has ranged from 2 to 5 per cent.

Surveys are conducted in coöperation with local public health departments which have the responsibility of seeing that patients receive treatment and that further spread of the disease is prevented.

Scholarships in Health Education.—Five scholarships for postgraduate study at the University of California have been granted by the State Department of Public Health to students who are taking work leading to a Master of Public Health degree with specialization in health education. Two other students are enrolled at the University of North Carolina on the same type of scholarship.

Upon completion of a year's study, the seven students will be available for employment in local health departments in California.

High Winter Incidence of Poliomyelitis in Los Angeles.—Health officer George M. Uhl in his December 29 *Bulletin*, stated:

"While the total number of cases occurring during November and December is only 53, it is the highest in the

history of Los Angeles. A high winter poliomyelitis incidence usually represents either a hangover from a previous summer epidemic or the start of a coming epidemic. Coming after a low summer incidence, the present relatively large number of cases points toward the start of an epidemic which may flare up during next summer. This possibility becomes especially significant when we consider that for the first time in the history of the city there were more cases reported in November than in October.

"While it is difficult to prognosticate, because of absence of regular cycles, nevertheless we should be prepared for an outbreak of poliomyelitis during the coming summer."

Press Clippings.—Some news items from the daily press on matters related to medical practice follow:

How Many Californians? It Looks Like 9,250,000

California's population by the first of the year will be 9,250,000, an increase approximately 34 per cent over 1940, according to an estimate by the California Taxpayers' Association released on December 18 through the Associated Press. The State's population was given as 6,907,387 in the 1940 census.

San Francisco's population as shown in the special Federal census taken in August was 827,400, a gain of more than 200,000 over the number of permanent residents shown by the 1940 Federal census.

The Association's estimate for Los Angeles County is 3,584,000 compared with 2,785,643 shown by Federal census in 1940, an increase of 798,400 or 29 per cent.

The Association based its figures primarily on elementary school enrollment, employment records and ration book rolls.—San Francisco *Chronicle*, December 8.

Population in Los Angeles County of 3,456.277 by Jan. 1 (Estimated)

On next January 1, Los Angeles County will have a total population of 3,456,277 housed in 1,134,828 dwelling units, according to figures released on December 9, by the housing division of the County Regional Planning Commission.

The estimated population figures for the entire county represents an increase of 670,584 since April, 1940. Dwelling units during the same period have increased 173,287, according to the report.

The city of Los Angeles, on January 1, will have an estimated population of 1,769,659, an increase of 265,374 since 1940, the report asserts. . . .—Los Angeles *Times*, December 9.

Send the Doctors Home

The Army points with just pride to its conquest over disease during World War II. Its disease death rate dropped from 14.1 to 0.6 per 1,000, compared with World War I. Employing penicillin, sulfonamides, DDT, vaccines, blood and plasma, the Army medical men pinned down such enemies as yellow fever, dysentery, typhus, tetanus, pneumonia and meningitis.

Understandably, the Army glories in its doctors. But grateful fondness must not turn into fond foolishness. It's time to demobolize the physicians so they may pursue the common foe on the civilian field.—Editorial in San Francisco *News*, December 31.

A Year of Medical Discovery

Reviewing the year's scientific progress, Dr. Robert C. Miller, director of the California Academy of Science, recently stated that while 1945 unquestionably would be known as the "year of the atomic bomb," the advances in treatment and prevention of diseases ranged foremost in terms of benefit to humanity.

The little-publicized discovery of promin — a distant relative of the sulfa group—will enable hundreds of lepers to thank 1945 scientists for improved treatment of their disease, he said.

"The year will be remembered as the year in which a cure was found for cholera that has been killing hundreds of thousands annually," he said.

Dr. Miller listed two other standout discoveries:

1. Bal, a new remedy for arsenic poisoning.

2. DDT, one of the most effective agents ever developed to combat typhus, malaria and sleeping sickness plagues.

"The great scientific events of this year are almost entirely due to the mobilization of research work for military purposes," Dr. Miller said.

Bal was the result of research to find an antidote for the effects of the deadly poison gas, lewisite, he said. The cholera cure evolved from U. S. medical officers' experiments involving blood plasma and drugs, he said. The cure was 100 per cent effective.

Other important advances listed by the academy were:

1. Aerial and strip mapping.

2. The return to prominence of mathematics, "by-passed before the war" but now restored by military needs to its rightful place.

3. Nutritional gains through study by the U. S. Quartermaster Corps designed to maintain the best-fed Army in the world.

Output Speeded of "Carbon 13," New Wonder Element Ranked In Importance With X-Ray

Philadelphia, Jan. 1.—(AP.)—Expanded production of Carbon 13, which recent experiments in biochemical research indicate "gives promise of ranking in importance with x-ray as a tool of medical science," was announced here today by Sun Oil Company, and Houdry Process Corporation.

The isotope, so rare that current production has been at the rate of less than one-half ounce per year, "may be compared to a chemical microscope that makes it possible for the chemist to see and follow chemical reactions in the body not possible with the x-ray," a joint statement declared.

Carbon 13 has been described as appearing like an ordinary carbon. It can be used to produce any of the compounds normally composed of carbon, such as sugar, alcohol, the hydrocarbons of gasoline and thousands of others, including synthetic rubber. Or, the statement continued, Carbon 13 can be used to grow vegetables which have some or all carbon atoms with atomic mass equaling 13. These compounds and vegetables, injected into or eaten by living organisms, including humans, contain the necessary "tracers" by which their effect on body functions can be discovered.

Research with the isotope, the companies said, already has led to discovery of how fats are broken down in the animal organism to create energy necessary to carry on the life process. In contradiction of a long established theory, Dr. C. H. Werkman of Iowa State College and Dr. E. A. Evans of the University of Chicago reported after experiments with Carbon 13 that animals as well as plants utilize carbon dioxide.

"The possibilities of research with Carbon 13 are almost beyond imagination," the statement said. "It is a new and powerful tool for a revolutionary approach to studies of the fundamental processes that occur in all living things, as well as metabolic disease processes such as cancer, diabetes, hardening of the arteries, so-called 'heart trouble' and others."

The companies announced plans for construction, by Sun Oil, of two plants to produce "comparatively substantial quantities of Carbon 13." Houdry now has in operation, at Marcus Hook, Pa., a thermal diffusion plant producing about one-fourth gram of Carbon 13 per month and has made this available without cost to members of the isotope research committee.

Present cost of Carbon 13 is approximately $400 per gram, the statement said, adding that the new plants should reduce this to approximately $40.—San Francisco *Examiner*, January 2.

American Medical Association Backs Voluntary Prepaid Plans

Chicago, Dec. 5.—(AP.)—The American Medical Association gave the green light today to a program designed to establish a nationwide network of "voluntary" prepayment medical plans, to be sponsored by medical societies.

The Association, through its House of Delegates, took action after branding as "socialized medicine" a proposal by President Truman for a Federal system of sickness insurance.

The Association's board of trustees and its council on medical service and public relations were instructed "to proceed as promptly as possible with the development of a specific national health program, with emphasis upon the nationwide organization of locally administered prepayment medical plans sponsored by the medical societies."

"This is the go-ahead signal we've been awaiting for a long time," said Dr. Edward J. McCormick of Toledo, Ohio, chairman of the council.

"The A.M.A. for several years has sponsored extensive

studies of existing pre-payment plans and has favored the extension of these as much as possible, but we now have an actual directive to promote the establishment of voluntary plans to cover the whole nation."

Declaring that 47 voluntary plans—sponsored by physicians—now are in operation in 24 states and that almost every other state medical society is in the process of developing plans, McCormick said:

"Up to now the states haven't had much to guide them. But, from our studies of existing plans, we will make our first objective the development of a 'skeleton plan' for the guidance of communities now uncovered."

McCormick and other members of his council gave this version of their program:

1. All existing plans and those that may be developed in other areas will maintain local autonomy, but an attempt will be made to coördinate their activities on some common basis so that a subscriber to a plan in Ohio would be able to get medical care in Indiana if he got sick in the latter state.

"Blue Cross" Plan

"We hope to get things on such a basis," said Thomas A. Hendricks of Indianapolis, layman executive officer of the council, "that a man can carry a medical service card with him anywhere in the country and get the same service he would in his own home town."

2. Whereas some existing plans are indemnity systems (straight cash at time of sickness) and others are medical service plans (with the plan paying the doctor's bill), Dr. McCormick said the A.M.A. would "very likely" suggest the latter type in new areas.

"Medical care insurance," he said, "might be sold in all probability with hospital coverage programs—such as the Blue Cross."

"We now have enough actual experience from our studies of prepayment plans that we're certain that this type of medical and surgical coverage can be given at less than half the cost that any government plan would entail," McCormick added.—San Francisco *Chronicle*, December 6.

Doctors Will Seek to Sell Medical Care Plan to Nation

Chicago, Dec. 6.—(AP.)—The American Medical Association is committed to a task of super salesmanship—encouraging close to 100,000,000 people throughout the nation to subscribe to "voluntary prepaid medical care" plans.

The Association's policy making group—the House of Delegates—headed homeward after a three day meeting which was highlighted by this development late yesterday.

Gives Go Ahead Signal

The House gave the go ahead signal to a program designed to establish the nationwide system of "voluntary" prepayment medical plans to be sponsored by medical societies.

To the Association's board of trustees and council on medical service and public relations is assigned the job of proceeding "as promptly as possible with the development of a specific national health program, with emphasis upon the nationwide organization of locally administered prepayment medical plans sponsored by the medical societies."

Those two groups will aim at promoting the development of medical care plans in large areas of the country now uncovered and will seek to coördinate such plans and also plans already in operation, in such a way that a subscriber in any part of the country will be able to have his doctor's bill paid no matter where he traveled.

23,000,000 Covered

Dr. Morris Fishbein, editor of the *Journal of the A.M.A.*, said 23,000,000 persons already are covered by private insurance company plans for industrial workers. He said also 5,000,000 persons are covered by 47 physicians' sponsored plans in 24 states, but that an undetermined number of the 5,000,000 are included in the 23,000,000. The overlapse occurred, he said, because some people seek additional coverage features from various plans.

Even with that head start, some delegates said the task of organization of plans for the rest of the nation cannot be accomplished "overnight."

San Francisco Is Selected

The House of Delegates selected San Francisco for the 1946 general convention of the A.M.A. next July. Dr. Harrison H. Shoulders, Nashville, Tenn., was chosen president-elect. Dr. William R. Molony, Los Angeles, was elected vice-president. Dr. John H. Fitzgibbon, Portland, Ore., was elected to a five-year term on the A.M.A. Board of Trustees, and Dr. Dwight H. Murray, Napa, Calif., was elected to serve on the Board until 1947.—Sacramento *Bee*, December 6.

The Battle of the Bugs

What We Did About Biological Warfare

Washington, Jan. 3.—(UP.)—Some of the more important accomplishments of the American biological warfare program revealed today were:

1. Development of methods and facilities for mass production of microörganisms and their products.

2. Development of methods for the rapid and accurate detection of minute quantities of disease-producing agents.

3. Significant contributions on the control of airborne agents.

4. Production and isolation for the first time of a crystalline bacterial toxin, which has opened the way for the preparation of a more highly purified immunizing toxoid.

5. Development of an effective toxoid in sufficient quantities to protect large scale operations should this be necessary.

6. Significant contributions to knowledge concerning the development of immunity in human beings and animals against infectious diseases.

7. Important advances in the treatment of certain infectious diseases of human beings and animals and in the development of effective protective clothing and equipment.

8. Development of laboratory animal propagation and maintenance facilities to supply the tremendous number of approved strains of experimental animals required for investigations.

9. Applications of special photographic techniques to the study of airborne microörganisms and the safety of laboratory procedure.

10. Information on the effects of more than 1,000 different chemical agents on living plants.

11. Studies of the production and control of certain diseases of plants.—San Francisco *Chronicle*, January 4.

"Better Than Atabrine or Quinine"

New Drug Is Found for Malaria Cases

Washington, Jan. 3.—(AP.)—American scientists reported today development of a new synthetic drug called superior to atabrine or quinine for malaria.

Termed "SN 7618," it relieves acute attacks of the disease three times faster than the other two drugs, according to the Board for the Coördination of Malarial studies.

In addition, the board said, it can be taken weekly instead of daily to keep the disease in a mild state, doesn't stain the skin as does atabrine, doesn't cause buzzing in the ears as does quinine, and doesn't make the patient sick at his stomach as the other two drugs sometimes do.

At the same time the scientists disclosed another new drug was offering "definite promise" of being the long-sought actual cure for the relapsing form of malaria—the type with which many returning servicemen are afflicted. They did not identify the drug specifically.

Neither drug is available to the public yet. The latter of the two is still in an experimental stage.

Conscientious objectors and prison inmates participated as volunteer "human guinea pigs," and several hundred thousand canary birds, ducks, chickens, monkeys, dogs, rabbits and mice were used in laboratory tests.

The first drug has been employed successfully in 5,000 human cases of malaria, the scientists said, but they would not recommend its release to civilians generally until still further trials are made.

"SN 7618" was described by the board as superior to atabrine for these reasons:

1. It relieves acute attacks of malaria in one to two days, compared with four to six for atabrine.

2. It need be taken only once a week instead of daily. And the once-a-week dosage is less than half the total amount of atabrine that must be consumed in a week.

3. It doesn't stain the skin.

4. It doesn't produce disagreeable stomach ailments.

5. It can be produced at the same cost as atabrine.

(Since atabrine was rated superior by the same group to quinine more than a year ago, they therefore class the new drug superior to both.)—San Francisco *Chronicle*, January 4.

A Warning to the Legislature

Conference Ends With Reminder to Lawmakers: This Is An Election Year

Sacramento, Jan. 6.—Notice was served on the Legislature on January 6, that representatives of the week-end gathering of the "state-wide emergency legislative conference" shall "be constantly at hand during the coming deliberations to remind our elected representatives that 1946 is here, and November (election time) is not too far away."

The notice was served by Democratic Attorney General

Robert W. Kenny in his final summation address detailing the work of the week-end conference panels. The conference was sponsored by a C.I.O. Political Action Committee-Democratic coalition although it was described as a "nonpartisan meeting" by Assemblyman Albert Dekker.

Dekker touched off a demonstration for the Attorney General by addressing him as "Governor." Most of the delegates informally declared their hope to "draft" Kenny as a candidate against Governor Warren.

Kenny himself wanted to keep the gubernatorial talk out of the conference lest it undo the work of the week-end. . . .

Two items not on the call for the special session received attention of the unemployment insurance and social security panel. One recommended a $60 old age pension at 60 and a $60 minimum for aid to blind persons. Another was approval of compulsory health and hospital insurance. . . .—San Francisco *Chronicle*, January 6.

Germ War Research at University of California

War with bacteria and other microörganisms instead of bullets. . . .

War with plagues that would not be known to be war until millions were stricken. . . .

War, whose preparations by a handful of men could be disguised as the natural peacetime trends of medical research. . . .

The War and Navy Departments on January 4, lifted, ever so slightly, the curtain of secrecy around wartime researches, proving that this nightmare is a definite possibility.

Simultaneous statements disclosed the United States, through investigations that centered at the University of California at Berkeley, mastered this new art of killing under threats that Germany and Japan would first use the tricks of biological warfare.

Japan, the War Department said, had made "definite progress" in preparing for bacterial warfare, but the war ended before she could develop the weapon for effective use.

Allies Were Ahead

The Allies, however, were far ahead of the Axis in the field, the services added. They did not intend to use germ warfare unless the enemy did first.

Navy research conducted over a 33-month period, primarily at the Berkeley campus, where students and staff thought something else was under analysis, confirmed that man-made epidemics could be an effective weapon in future wars.

The Navy said its "top secret" research resulted in information of "great value" in protecting the United States against possible bacterial attacks, and would contribute to peacetime control of communicable, airborne diseases.

Captain Albert Paul Krueger, Medical Corps, U.S.N.R., professor of bacteriology at U. C., commanded the U. C. project which was commissioned prior to Dec. 7, 1941, under direction of the then surgeon general of the Navy, Vice Admiral Ross T. McIntire.

The staff consisted of 19 officers and 45 enlisted men on V-J Day.

War Department researches were carried on additionally at laboratories in Maryland, Mississipi, Utah and Indiana. A total of 4,000 scientists and assistant personnel were employed by both services in inquiries labeled top secret.

"Influenza Research"

Dr. Krueger's work into bacterial war possibilities, it can now be told, had a public blind—that the microbe hunters were winning a hard fight against influenza viruses.

While a token group did evolve some preventatives and measures against the wracking flu bugs, the greater experiments went on, apparently to the point where the Navy could spread chaos with a disease described as "centuries old and one of the greatest killers."

The Navy will not disclose the disease with which it conducted its research at U. C., but levelers falling into that general description might mean cholera, bubonic plague or typhus.

A protective suit with self contained oxygen supply was devised for the use of workers in any prospective rescue or decontamination operation.

The unit also participated in the testing of special antibacterial masks, vaccines, antibiotics and sulfa drugs—the measures designed for mass protections.

"No Infections Arose"

So efficient were precautionary measures taken by and for project workers that no infection due to the organisms studied occurred among investigators, the Navy reported.

The work of the Berkeley unit is continuing into 1946 coördinated by the Bureau of Medicine and Surgery with the Army-Navy biological welfare program.

The War Department report, made to the secretary of war by George W. Merck, special consultant, declared the biological warfare program was undertaken "under the goad of necessity and aimed primarily toward securing for this nation and its troops in the field adequate protection against the possible use of biological warfare by the enemy."

MEDICAL JURISPRUDENCE†

HARTLEY F. PEART, ESQ.
San Francisco

Contracts for the Maintenance of a Physician's Practice While He is in Military Service

The case of *Hamilton vs. Salopek*, 71 ACA 107, decided October 1, 1945, by the District Court of Appeal, involved construction of a contract between two physicians under which the defendant had agreed to maintain the practice of the plaintiff while the plaintiff was absent in military service.

The issue involved in the case was the right of the plaintiff, after his return from military service, to share in the accounts receivable which had accrued during the course of the defendant's operation of the office. The contract provided that the defendant was placed in charge of the plaintiff's medical office and professional equipment while the latter was away in service. Under the terms of the contract, defendant was to receive a specified salary or drawing account and a "designated percentage of the net office income." The contract provided that the defendant "does by these presents agree to associate with and maintain the medical practice of the party of the first part (plaintiff) until the party of the first part shall be released from the Government service and resume his said practice." The last paragraph of the contract specifically provided: "The purpose of this agreement is to provide for such period of time as the party of the first part is in the military service of the United States and absent from the community, and for the preservation of his practice."

During the time plaintiff was in service the defendant regularly accounted for and paid to plaintiff his share of the cash receipts, but upon the plaintiff's return and resumption of his practice a dispute arose as to plaintiff's rights to any portion of the outstanding accounts receivable, and plaintiff brought this action to recover his share.

The court's decision was as follows:

"From this summary of the entire agreement it appears that said contract was nothing more than a contract of employment wherein a profit-sharing arrangement had been worked out between the parties. Nothing can be found therein even intimating that Dr. A was in any way selling or disposing of, or otherwise turning over his practice to Dr. B. The practice remained that of Dr. A for the preservation of which the contract was executed. This being true, the defendant was entitled only to that 'compensation' which the contract specifically gave to him. Under the circumstances herein plaintiff might well have been entitled to an accounting of all accounts receivable from the defendant. However, plaintiff by his complaint merely requested that defendant be required to account for plaintiff's share in the accounts receivable on the same basis as provided in the agreement for the division of 'net office income.'

"The judgment is affirmed."

† Editor's Note.—This department of CALIFORNIA AND WESTERN MEDICINE, presenting copy submitted by Hartley F. Peart, Esq., will contain excerpts from the syllabi of recent decisions, and analyses of legal points and procedures of interest to the profession.

TWENTY-FIVE YEARS AGO†

EXCERPTS FROM OUR STATE MEDICAL JOURNAL

Vol. XIX, No. 1, January, 1921

EXCERPTS FROM EDITORIAL NOTES

Tithes [In 1921].—"Render unto Caesar," etc. From time to time it is advisable to publish some of the essential requirements of membership in the State Medical Society.

In the first place, it is necessary to be a licentiate in the State of California.

An officer in the Army or Navy cannot join the State Society unless he has a state license from the Board of Medical Examiners. He may become an honorary member of a County Society. This gives him no standing in the state organization.

A fellow of the American Medical Association, or a member of another State Society cannot transfer into our State Society. He must enter as a member of a county unit, and pay his full dues. Our dues are more and give more in return than others do.

Every member must be licensed by the State Board of Medical Examiners.

A member in good standing can join the Indemnity Defense Fund by paying $30. This is no yearly assessment, but periodic, probably lasting four or five years.

The physician must pay many dues and taxes to maintain his proper relation to the federal, state and municipal governments.

You must pay your narcotic tax and your municipal license, as a matter of course. If you fail in doing this, the government in question will look into your case.

But if you fail to pay your state tax, a sum of two dollars which goes to the State Board of Medical Examiners, you forfeit your license to practice medicine.

To be in good standing in the State Medical Society, to receive Medical Defense, to be a member of the fund, you must pay your state tax and your county dues.

Don't forget this! Do it now!

$100,000 to Fight Vivisection.—During the recent campaign many people wondered who was paying for the tons of lurid literature that were scattered broadcast throughout the State of California. It was evident to all that the anti-vivisectionists had abundant funds and did not hesitate to spend them. They are now preparing for their next campaign and $100,000 has just been left by the will of Ruth C. Hawkins 'to abate the wicked horror of vivisection." . . .

It is regrettable that a few prejudiced people filled with reckless emotionalism, who close their eyes and ears but unloose their tongues, can stir up so much clamor against an agency of human progress that is constantly bestowing benefits on all. They resist all rational appeal and chatter about science and logic.

A few years ago Dr. W. W. Keen wrote a convincing article on vivisection in the Ladies' Home Journal. Instead of convincing the "tender-hearted" anti-vivisec-

(Continued in Front Advertising Section, on Page 17)

† This column, compiled by the undersigned, strives to mirror the work and aims of colleagues who bore the brunt of Association activities some twenty-five years ago. It is hoped that such presentation will be of interest to both old and new members.

Historical reminiscences, papers and other archives will be welcomed by the C.M.A. Committee on History, to whom such should be sent. Address same to the Committee's Secretary, Dr. George H. Kress, Room 2004, 450 Sutter, San Francisco, 8.

BOARD OF MEDICAL EXAMINERS OF THE STATE OF CALIFORNIA†

By F. N. SCATENA, M. D.
Secretary-Treasurer

Board Proceedings

At the annual meeting of the Board of Medical Examiners, held in Sacramento, October 15 to 18, 1945, the following officers were elected for the ensuing year:

Frank W. Otto, M.D., Los Angeles, President;
Herbert S. Chapman, M.D., Stockton, Vice President;
Frederick N. Scatena, M.D., Sacramento, Secretary-Treasurer.

The next regular meeting of the Board of Medical Examiners will be held in Los Angeles March 11th to 14th. At this meeting hearings will be held on petitions for restoration of licenses, as well as disciplinary proceedings against those charged with unprofessional conduct under the Business and Professions Code. Written examinations for all classes of licentiates under jurisdiction of the Board of Medical Examiners will be held at this meeting.

Applicants required to take the oral examination are requested not to appear at an examination until definitely advised to appear. The Board is handling such applicants as expeditiously as possible but must ask that they await official notice from the Board for such appearance.

News

"Dr. Rudolf von Urban, Vienna's gift to Monterey County in the division of marital relations today resigned his new job as deputy probation officer in favor of free speech, particularly as it pertains to sex. The good gray doctor announced both his decision and irritation in a 750-word letter to County Probation Officer John Kelly, after having been informed, both directly and indirectly, that he should give up service club speeches. Sworn in as probation office deputy two weeks ago, Dr. von Urban was to have taken office November 25. He agreed at that time to curtail his frank discussions on the subject of sex education before luncheon clubs, but balked when his bosses insisted he give up a speaking engagement before a State convention. . . ." (Press dispatch from Salinas, Oct. 23, published San Francisco *Chronicle*, Oct. 24, 1945.)

"Deputy District Attorney A. B. Nathanson yesterday refused to issue a manslaughter complaint against Raymond V. Fraher, accused by state medical authorities of causing the death of a three-month-old boy by posing as a physician. Nathanson said there was no evidence to support the claim that three-months-old David McInnes died last Saturday because Fraher had diagnosed his ailment wrongly and had prescribed a too-harsh remedy. The boy's parents did not follow the suggestions made by Fraher, Nathanson said. Fraher, however, was named in a misdemeanor complaint issued by Lewis C. Teegarden, Chief Complaint Deputy of the City Attorney's Office, and will be prosecuted on a violation of the medical practices code, Chief Investigator Walter N. Anderson of

(Continued in Back Advertising Section, on Page 40)

† The office addresses of the California State Board of Medical Examiners are printed in the roster on advertising page 6. News items are submitted by the Secretary of the Board.